Exhibit 32

PLAINTIFFS' RESPONSE TO DEFENDANTS' MOTION TO EXCLUDE GENERAL CAUSATION TESTIMONY OF PLAINTIFFS' EXPERTS

Case No.: 4:22-md-03047-YGR MDL No. 3047

In Re: Social Media Adolescent Addiction/Personal Injury Products Liability Litigation

EXPERT REPORT OF Dr. Stuart Murray, MSc., DClinPsych, Ph.D

May 16, 2025

The undersigned hereby certifies their understanding that they owe a primary and overriding duty of candor and professional integrity to help the Court on matters within their expertise and in all submissions to, or testimony before, the Court. The undersigned further certifies that their report and opinions are not being presented for any improper purpose, such as to harass, cause unnecessary delay, or needlessly increase the cost of litigation.

Dr. Stuart Murray, DClinPsych, Ph.D

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I. Executive Summary of Opinions

- 1. This report is an assessment of the impact of social media used among children and adolescents and young adults on their mental health, specifically including body image and disordered eating. I performed a standard systematic review of the literature, employing methodology aimed at minimizing bias. A review of the existing literature establishes a clear causal connection between certain design characteristics of social media and an increased risk of eating disorders and body dysmorphia. These characteristics include social comparison metrics (such as likes), appearance or beauty filters, the public and permanent nature of social media, and emphasis on highly visual feeds and posts. Similarly, targeted algorithms that lead to filter bubbles and rabbit holes can increase the risk of eating disorder and body dysmorphia.
- 2. My review also establishes a clear causal connection between the use of social media and increased risk of anxiety, depression, self-harm and suicidality, and insomnia in children and adolescents. My opinions are given based on my systematic review of the literature and information publicly available, as well as my review of defendants' internal documents and my professional experience in the field.

II. Summary of Opinions

- 3. My opinions consider the totality of the evidence and are given to a reasonable degree of scientific and medical certainty. My opinions are as follows:
 - A. Use of social media can cause problematic use or social media addiction in children and youth and cause or contribute to cause other mental health harms.
 - B. A review of the scientific literature strongly supports the causal connection between social media use and increased risk for anxiety, depression, eating disorders, body dysmorphia, suicidality/self-harm, and insomnia in children and youth in the United States. Defendants' internal documents, including

- studies and surveys done by social media companies, align with this literature.
- C. Mental health conditions, such as anxiety and depression, which can be caused by problematic social media use, increase the likelihood of developing an eating disorder, and make recovery from an eating disorder less likely.
- D. Eating disorders comprise a broad category of disorders that includes several different diagnoses characterized by weight loss and emaciation, pervasive dietary restriction, binging, purging, and other related behaviors. Body dysmorphia is a related but separate disorder with its own sequela.
- E. Eating disorders have several risk factors, including genetics, the environment, gender, other mental health diagnoses, and use of social media.
- F. Eating disorders have lasting effects on multiple organ systems in the body, including the brain, are difficult to treat, and have high recurrence rates even if remission is achieved.
- G. The lasting effects of eating disorders can include negative impacts on fertility, cognition, and decreased lifespan.
- H. Problematic use of social media can exacerbate symptoms of existing eating disorders, resulting in greater difficulty of achieving full treating into remission, and increasing the likelihood of recurrence.
- I. There are numerous validated scales that assist clinicians with diagnosing eating disorders, social media use disorders, and other mental health harms. In particular, the Social Media Disorder scale screens for behaviors typically associated with addictive use patterns in the DSM.

III. Background and Qualifications

- 4. I am the Franklin Mint Professor of Psychiatry and Biobehavioral Sciences at the University of California, Los Angeles (UCLA). I also serve as the Director of the Eating Disorders Program at UCLA, which is located in the Resnick Neuropsychiatric Hospital at UCLA which ranked 5th in the *US News & World Report Best Hospitals Honor Roll*. Additionally, I am the Director of the UCLA Translational Research in Eating Disorders Program.
- 5. I received a dual Doctorate of Clinical Psychology and Ph.D. from the University of Sydney in 2012, both of which included a specialized focus in eating disorders and body image.

I also completed a Postdoctoral Fellowship at the University of California, San Diego – which specialized in eating disorders. Most recently, I completed an additional MSc in Neuroimaging and Informatics in 2024 from the University of Southern California.

- 6. I have been licensed to practice as a clinical psychologist in the State of California since 2015. Prior to that I was licensed to practice as a clinical psychologist in the State of New South Wales in Australia, since 2011.
- 7. Within the scope of my current role, I direct the Eating Disorders Program at UCLA which is a highly specialized inpatient psychiatric unit designed for the treatment of severe pediatric eating disorders. More specifically, I oversee a multidisciplinary program of skilled health professionals which includes psychiatrists, hospitalists, psychologists, occupational therapists, registered dietitians, social workers, registered nursing staff, clinical behaviorists, and recreational therapists. The children in my program range from 10-18 years of age, and are typically among the most unwell eating disorder patients in the nation. My role involves direct oversight of all treatment planning and patient diagnoses, direct assessments of patients and their families, and supervision of all staff in administering all aspects of patient care. While the program I oversee is targeted toward eating disorders, I also treat patients for co-morbidities that are commonly found in individuals with eating disorders, including anxiety, depression, self-harm, PTSD, ADHD, autism and OCD, among others.
- 8. Prior to UCLA, between 2020-2024 I served as the Della Martin Associate Professor in Psychiatry and Behavioral Sciences at the University of Southern California, and the Director of the Eating Disorders Program at the University of Southern California. In this role (i) I developed and directed two large multidisciplinary outpatient clinics which provided assessments, diagnoses and treatment for eating disorders among USC students; (ii) I developed

directed two multidisciplinary outpatient clinics which provided assessments, diagnoses and treatment for eating disorders for youth and young adults with eating disorders in publicly insured settings; and (iii) I was the Lead Consultant to the inpatient eating disorder program at the Children's Hospital of Los Angeles. My role involved direct patient interaction, direct assessments of patients and their families, and supervision of all staff in administering all aspects of patient care.

- 9. Between 2015-2020 I served as an Assistant Professor at the University of California, San Francisco (UCSF), where I developed and directed an Intensive Family Therapy Program, for the treatment of eating disorders in youth and young adults. My role involved the direct assessment and provision of treatment to up to 6 adolescents with eating disorders, and their families in a multi-family format, for 40 hours over the course of one week.
- 10. Also within the scope of my current role at UCLA, I direct the Translational Research in Eating Disorders Program. This is a specialized research program, funded by National Institute of Health and foundation funding, designed to elucidate the mechanisms underpinning eating disorder psychopathology, and develop improved treatments. This program of research includes neuroimaging studies, genetic studies, psychophysiological studies, behavioral studies, and treatment studies.
- 11. To date, I have published over 240 peer-reviewed scientific articles, and an additional peer-reviewed 100 abstracts and book chapters, relating to the development and treatment of eating disorders. My published works have featured in high impact medical, pediatric and psychiatric journals, such as JAMA, JAMA Psychiatry, JAMA Pediatrics, and JAMA Neurology, in addition to high impact specialty neuroscience, psychology and eating disorder journals such as Neuroscience & Biobehavioral Reviews, Psychological Medicine, and the

International Journal of Eating Disorders. Cumulatively, my research has more than 12,500 citations, and demonstrates a H-Index of 63 61, and an i10-Index of 207. This means that at least 63 of my scientific papers have been cited by other researchers at least 63 times, and that at least 207 of my scientific papers have been cited at least 10 times by other researchers in my field. This is considered an excellent publication track record.¹

- 12. I have served as a primary research mentor to more than 30 junior researchers – who have collectively published more than 500 peer-reviewed scientific articles to date. These published works have featured in high impact medical, pediatric and psychiatric journals, such as JAMA, Lancet, JAMA Internal Medicine, JAMA Network Open, JAMA Pediatrics, and Lancet: Child & Adolescent Health. I have trained and mentored more than 50 board-certified psychiatrists and licensed clinical psychologists in their capacity to assess, diagnose and treat eating disorders.
- 13. I am among the world's most published scholars on male eating disorders. To date, I have published more than 100 peer-reviewed scientific manuscripts relating to male eating disorders. I have published the field's first assessment of sex differences in the neurobiology of male eating disorders, highlighting key differences in brain structure and functions in boys with eating disorders. Moreover, I published the field's first series of papers highlighting how eating disorders may present differently, when oriented towards muscularity. To that end, my research gave rise to the now commonly used term 'muscularity-oriented disordered eating'.
- 14. I have developed a novel measure of indexing muscularity-oriented disordered eating, which has been translated, psychometrically validated, and is now commonly used in 5 different languages.

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¹ Stapleton, A. (2024, August 20). What is a good h-index for each academic position?. Academia Insider. https://academiainsider.com/what-is-a-good-h-index-for-each-academic-position/

- 15. Between 2020-2023 I served as Associate Editor of Body Image - a leading international journal for body image-related research. Moreover, since 2019 I have served on the Editorial Board of Body Image. This Editorial Board includes a global collection of experts in the assessment and prevention of body image disorders.
- 16. Since 2016 I have served on the Editorial Board of Eating Disorders: The Journal of Treatment & Prevention - which is an international journal specializing in eating disorder research. This Editorial Board includes a global collection of experts in the treatment and prevention of eating disorders.
- 17. Since 2017, I have served on the Editorial Board of the Journal of Adolescent Health, which is an inter-disciplinary journal specializing in adolescent general health. This Editorial Board comprises a list of global experts in various professional health fields relating to overall adolescent development, both in illness and in health.
- 18. Since 2019, I have served on the Editorial Board of the Behavior Research and Therapy, which is an inter-disciplinary journal specializing in the treatment of psychological ailments. This Editorial Board includes a global collection of experts in the behavioral treatment of psychiatric illness and mental health-related concerns.
- 19. In 2019, I was invited to guest edit a Special Issue of the International Journal of Eating Disorders, relating to cutting edge research around eating disorder in males.
- 20. I have published 3 textbooks relating to the treatment of eating disorders -Innovations in Family Therapy for Eating Disorders (Routledge Press, 2016), Clinical Handbook of Complex and Atypical Eating Disorders (Oxford University Press, 2017) and Eating Disorders in Boys and Men (Springer, 2021). These books have been appointed as core curricula in training programs relating to specialized eating disorder care.

- 21. Since the publication of my book, Clinical Handbook of Complex and Atypical Eating Disorders (Oxford University Press, 2017), I have been invited to design and deliver presentations and training workshops to doctors, legislators, multidisciplinary trainee health professionals, and the public, about the nature and treatments of eating disorders. A significant component of my work in this domain has related to how sociocultural processes may exacerbate risk factors, and the development of eating disorder symptomatology.
- 22. In 2017, I published the first of a series of articles assessing disordered eating behaviors which are widely disseminated via social media. This paper, titled "A Thematic Content Analysis of #CheatMeal Images on Social Media: Characterizing an Emerging Dietary Trend" was published in the International Journal of Eating Disorders, and noted that images of highcalorie meals and highly muscular male images on Instagram were commonly associated with a #CheatMeal hashtag.² Subsequent analyses in a follow up paper in 2018, titled "Cheat Meals: A Benign or Ominous Variant or Binge Eating Behavior" noted that cheat meal engagement is common among young adults, and is linked with well recognized disordered eating behaviors.³
- 23. In 2021, I published an article in the International Journal of Eating Disorders titled "Contemporary Screen Time Modalities among Children 9-10 Years Old and Binge Eating Disorder at One-Year Follow-Up: A Prospective Cohort Study" which illustrated that greater

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² Pila, E., Mond, J. M., Griffiths, S., Mitchison, D., & Murray, S. B. (2017). A thematic content analysis of #cheatmeal images on social media: Characterizing an emerging dietary trend. International Journal of Eating Disorders, 50(6), 698–706. https://doi.org/10.1002/eat.22671

³ Murray, S. B., Pila, E., Mond, J. M., Mitchison, D., Blashill, A. J., Sabiston, C. M., & Griffiths, S. (2018). Cheat meals: A benign or ominous variant of binge eating behavior? Appetite, 130, 274–278. https://doi.org/10.1016/j.appet.2018.08.026

screentime (including social media use) in 9-10-year-old-children was prospectively associated with greater odds of being diagnosed with binge eating disorder at one-year follow-up.⁴

- Also in 2021, I published an article in *Pediatric Obesity* titled "Contemporary 24. Screen Time Usage among Children 9-10-Years-Old is Associated with Higher Body Mass Index Percentile at 1-Year Follow-Up: A Prospective Cohort Study", which noted that greater screentime in 9-10-year-old-children (including social media use) was prospectively associated with a higher BMI percentile one year later during the course of pre-adolescent development.⁵
- In 2023, I published an article in Preventative Medicine called "Screen Time and 25. Suicidal Behaviors among US Children 9-11 Years Old: A Prospective Cohort Study" which noted that greater screentime in 9-11-year-old-children (including social media use) was prospectively associated with greater odds of suicidal behaviors at two-year follow-up.⁶
- 26. Also in 2023, I published an article in the Journal of Adolescent Health titled "Screen Time and Obsessive-Compulsive Disorder Among Children 9-10 Years Old: A Prospective Cohort Study", which noted that greater screen time with social media, videogames and watching

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⁴ Nagata, J. M., Iyer, P., Chu, J., Baker, F. C., Pettee Gabriel, K., Garber, A. K., Murray, S. B., Bibbins-Domingo, K., & Ganson, K. T. (2021). Contemporary screen time modalities among children 9-10 years old and binge-eating disorder at one-year follow-up: A prospective cohort study. International Journal of Eating Disorders, 54(5), 887-892. https://doi.org/10.1002/eat.23489

⁵ Nagata, J. M., Iyer, P., Chu, J., Baker, F. C., Gabriel, K. P., Garber, A. K., Murray, S. B., Bibbins-Domingo, K., & Ganson, K. T. (2021). Contemporary screen time usage among children 9–10years-old is associated with higher body mass index percentile at 1-year follow-up: A prospective cohort study. Pediatric Obesity, 16(12). https://doi.org/10.1111/ijpo.12827

⁶ Chu, J., Ganson, K. T., Baker, F. C., Testa, A., Jackson, D. B., Murray, S. B., & Nagata, J. M. (2023). Screen Time and suicidal behaviors among U.S. children 9–11 years old: A prospective cohort study. Preventive Medicine, 169, 107452. https://doi.org/10.1016/j.ypmed.2023.107452

videos among 9-10-year-old-children was prospectively associated with the development of OCD at two-year follow-up.⁷

- 27. In keeping with this, in my clinical work I have worked to develop and implement clinical programming that includes a social media literacy training group, where patients discuss the impact of social media on eating disorder onset and progression. This group also involves the development of guardrails around social media use, with a view to preventing relapse.
- 28. I have been awarded multiple grants by the National Institutes of Health, and from private foundations such as the National Eating Disorders Associations (NEDA) and the Klarman Family Foundation to advance research relating to our understanding of the mechanisms driving eating disorder psychopathology, and the treatment of eating disorders specifically in adolescent and young adult populations.
- 29. Between 2014-2019, I served as the Director of the *National Association for Males* with Eating Disorders. This nationwide organization sought to collate and disseminate expertise relating to the detection, prevention and treatment of eating disorders in males.
- 30. Each year since 2020, I have been regularly ranked by NIH's PubMed's ExpertScape in the top 10 leading experts in the world for body image disorders, and feeding and eating disorders, and body dysmorphic disorder, simultaneously.⁸

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⁷ Nagata, J. M., Chu, J., Zamora, G., Ganson, K. T., Testa, A., Jackson, D. B., Costello, C. R., Murray, S. B., & Baker, F. C. (2023). Screen Time and obsessive-compulsive disorder among children 9–10 years old: A prospective cohort study. Journal of Adolescent Health, 72(3), 390–396. https://doi.org/10.1016/j.jadohealth.2022.10.023

⁸ Expertise in body image:. Body Image: Worldwide - Expertscape.com. (n.d.). https://expertscape.com/ex/body+image; Expertise in body dysmorphic disorders:. Body Dysmorphic Disorders: Worldwide - Expertscape.com. (n.d.). https://expertscape.com/ex/body+dysmorphic+disorder; Expertise in feeding and eating disorders:. Feeding and Eating Disorders: Worldwide - Expertscape.com. (n.d.). https://expertscape.com/ex/feeding+and+eating+disorders

- 31. I regularly serve on expert review meetings for the National Institute of Mental Health (NIMH). In this capacity, my role consists of providing expertise on eating disorders as the NIMH reviews grant applications and determines how to allocate research funding nationwide.
- 32. My clinical experience in patient populations frequently involves the discussion of social media. In my current capacity as (i) Director of the Eating Disorders Program at UCLA, which is an inpatient psychiatric facility which offers treatment to severely unwell adolescents with eating disorders, and (ii) my previous capacity as Director of the Eating Disorders Program at USC, which offered outpatient treatment to adolescents and young adults approximately 70% of my patient population self-report that social media use contributed to the development or maintenance of their eating disorder.
- 33. A core component of treatment within the clinical programs I oversee and direct is a "social media literacy training program" – which aims to enhance critical thinking and skepticism about social media and enhance proficiency in deconstructing the motivations for friend and celebrity postings on social media, and the modification of images to represent a preferred and unrealistic self. Over the last 10 years of my clinical practice, most patients have reported that social media literacy is a critical part of their relapse prevention.

IV. **Assignment and Methodology**

- For purposes of this report, I have been asked to perform a systematic review to 34. assess the impact of social media used among children and adolescents and young adults on the mental health of children and young adults in general, and specifically including body image and disordered eating.
- 35. Standard systematic review methodology aimed at minimizing bias was employed throughout the study, and reporting followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

- 36. Key search terms included combinatorial iterations of the following search terms, with Boolean operators: 'social media', 'Instagram', 'Facebook', 'TikTok', 'Snapchat', YouTube AND 'body image', 'body dissatisfaction', 'disordered eating', 'eating disorder', 'anorexia nervosa', 'bulimia nervosa', 'binge eating disorder', 'avoidant restrictive food intake disorder', 'muscle dysmorphia', 'muscle dissatisfaction', 'drive for thinness', 'drive for muscularity', 'depression', 'anxiety', 'suicide' and 'suicidality', insomnia', 'sleep disorder', 'self-harm', 'filter', 'mental health', 'design', 'feature', 'well-being', 'wellbeing'.
- 37. I searched the following databases for eligible articles: PubMed, MEDLINE, PsycINFO, and ScienceDirect, between the dates of January, 2004 – present. Review of the gray literature also included unpublished theses, and a review of the reference lists from previously published reviews on related topics.
- 38. Studies in both clinical and non-clinical populations between January 1, 2004 – present were included. Any study which indexes the type, duration and intensity of social media use among children and adolescents, AND indexes the association between such social media use and body image, eating disorder and mental health-related outcomes were considered. No limitations on the type of study methodology (e.g., case study, observational study, randomized controlled trial, meta-analyses, etc.) were imposed, provided that all studies satisfy the reporting criteria in terms of outcome reporting. It is well-accepted in the study of eating disorders and their related etiology to rely upon cross-sectional and correlational analyses as there are considerable ethical barriers that limit the ability to obtain experimental data.
- 39. This review includes children, adolescents and transition-aged youth, and adults. Participants with and without DSM-5 psychiatric diagnoses were included, but psychiatric diagnoses were recorded where available. Studies from any country were included, provided that

the study was written in, or was translated into English. The studies were indexed in the selected databases, with abstracts and full text available in the online scientific journal libraries, in the English language.

- 40. Studies were included if there was a comparator or control group. With the increasing ubiquity of social media use among children and adolescents, it is unlikely that a 'no social media use' control cohort will be present, although groups stratified by level of social media use will also be included and indexed. Moreover, among studies assessing specific populations (e.g., clinical populations of children with psychiatric diagnoses), control groups of non-clinical populations were included where possible.
- 41. Main outcomes include (1) any objective metric of the type, duration, frequency and intensity of social media use, and (2) any validated measure of (i) body image, (ii) disordered eating, (iii) general psychiatric wellbeing. Additional outcomes assess the characteristics of those included in the study, and additional health-related outcomes, via validated measurement instruments.
- 42. I have also reviewed Defendants' (Meta, YouTube, Snap and TikTok) documents and depositions of current and former employees provided to me, that were related to design features and mental health effects. While these documents are separate from the peer-reviewed literature, the Defendants had the unique perspective of performing their own assessments and testing and were able to make observations that the general public did not have access to – many of which supported observations reported in the literature.
- For purposes of opinions regarding social media addiction, I have reviewed, rely 43. upon and concur with the opinions in Anna Lembke, M.D.,'s April 18, 2025 JCCP report.

- 44. All of my opinions expressed herein are held to a reasonable degree of medical and scientific certainty.
- 45. I have attached to my report my full CV (Exhibit A), Materials List (Exhibit B), and Compensation Statement and Prior Testimony (Exhibit C).

V. **An Overview of Eating Disorders**

- The psychopathology of eating disorders has been well documented for A. centuries
- 46. The eating disorders (ED) represent a constellation of debilitating, potentially lethal, and often chronic psychiatric disorders which are centrally characterized by disturbances in feeding behaviors and body image. Eating disorders have been documented in the medical literature since 1689, when Sir Richard Morton described two clinical cases of self-directed starvation in the absence of discernable medical causes, characterized by "nervous consumption" and "wasting away due to emotional turmoil". In 1874, the term anorexia nervosa was coined and introduced as a clinical diagnosis, as the psychopathology was again described in the medical literature by two physicians documenting the exact same symptom profile as described almost 200 years earlier. Since that time, an abundance of peer-reviewed literature relating to eating disorders has emerged, with more than 2.9 million search hits relating to "eating disorders" appearing on a simple Google Scholar search, and more than 54,000 peer-reviewed scientific manuscripts being published on the NIH-operated PubMed online library in the last 50 years alone.
 - B. Symptoms of eating disorders vary in ways including associated habits and frequency of eating
- 47. The current DSM-5 conceptualization of the ED spectrum delineates between several distinct subtypes of eating disorders – all characterized by central disturbances in feeding behavior.

- 48. Anorexia nervosa (AN) is characterized by (i) a pervasive restriction of food and energy intake, leading to a significantly low bodyweight in the context of age, sex and developmental trajectory, (ii) a profound fear of weight gain or becoming fat, and evidence of persistent behaviors that interfere with weight gain, (iii) a disturbance in the way in which one's body is experienced, (iv) the undue influence of body weight or shape on one's self-evaluation, and (v) a denial of the seriousness of low weight. Full threshold presentations of AN may be include frequent episodes of binge eating and purging, which is termed anorexia nervosa binge/purge subtype. Presentations of AN which do not include frequent episodes of binge eating and purging is termed anorexia nervosa – restrictive subtype.
- 49. Bulimia nervosa is centrally characterized by (i) recurrent episodes of binge eating - defined by both (1) eating, in a discrete period of time (e.g., within a two-hour period), an amount of food that is definitely larger than what most people would eat during a similar period of time and under similar circumstances, and (2) the loss of control during the eating episode (e.g., the feeling that one cannot stop eating, or control how much one eats), and (ii) recurrent inappropriate compensatory behavior to prevent weight gain, such as self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise, (iii) which occur on average at least once weekly for three months, (iv) and undue influence of body weight or shape on one's selfevaluation.¹⁰
- 50. Binge eating disorder (BED) is centrally characterized by (i) recurrent episodes of binge eating – defined by both (1) eating, in a discrete period of time (e.g., within a two-hour

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⁹ American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author

¹⁰ American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author

period), an amount of food that is definitely larger than what most people would eat during a similar period of time and under similar circumstances, and (2) the loss of control during the eating episode (e.g., the feeling that one cannot stop eating, or control how much one eats), (ii) binge episodes being associated with 3 of the following: (1) eating much more rapidly than normal, (2) eating until feeling uncomfortably full, (3) eating large amounts of food when not feeling physically hungry, (4) eating alone because of feeling embarrassed by how much one is eating, (5) feeling disgusted with oneself, depressed, or very guilty afterwards, (iii) marked distress being present in regard to binge episodes, (iv) binge episodes occurring on average at least 1 day per week for 3 months, and (v) binge eating not being accompanied by compensatory behaviors. 11

- Avoidant and Restrictive Food Intake Disorder (ARFID) is characterized by an 51. eating or feeding disturbance that is not associated with shape and/or weight concerns. Rather ARFID is characterized by an eating or feeding disturbance (e.g., apparent lack of interest in eating or food) based on the sensory characteristics of the food, or a concern about perceived aversive consequences of eating (e.g., choking, or vomiting), and manifest by persistent failure to meet appropriate nutritional and/or energy needs associated with one of the following: (i) significant weight loss, (ii) significant nutritional deficiency, (iii) dependence on enteral feeding or oral nutritional supplements, or (iv) marked interference with psychosocial functioning.¹²
- 52. Pica is centrally characterized by the persistent eating of non-nutritive, non-food substances over a period of at least 1 month, with these eating behaviors not being part of a culturally support or socially normative practice.

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¹¹ American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author

¹² American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author

- 53. Rumination disorder is characterized by the persistent and non-volitional regurgitation of food over a period of at least one month, with the regurgitated food often then being chewed again and swallowed, or spit out. The repeated regurgitation is not due to another medical condition, or abnormalities within the food.
- 54. Other Specified Feeding of Eating Disorders (OSFED) may be conceptualized as clinically salient eating disorder symptoms, which cause significant impairment of functioning and marked psychological distress, but do not fulfill all criteria of the previously listed eating disorders. Examples may include (i) atypical anorexia nervosa – where the individual meets the criteria for anorexia and has sustained significant weight loss as a result, but they remain within or above the weight range that is considered normal for their height and gender, (ii) bulimia nervosa (of low frequency and/or limited duration) – where the individual meets the criteria for bulimia, with the exception that they engage in bingeing and compensatory behaviors less than one time per week or for a duration of fewer than three months, (iii) binge-eating disorder (of low frequency and/or *limited duration*) – where the individual meets the criteria for BED, except that they average no more than one bingeing episode per week or have been experiencing symptoms for fewer than three months, (iv) purging disorder – where the individual engages in purging behaviors such as self-induced vomiting or laxative misuse, but they do not experience binge eating episodes, (v) night eating syndrome - where the individual experiences recurring episodes of eating after awakening at night, or of eating excessively after their evening meal. These episodes cause significant distress or impaired functioning.¹³

¹³ American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author

55. While not formally listed in the DSM-5, an increasing body of evidence has sought to characterize and define eating disorder psychopathology which is oriented towards the pursuit of a more muscular (bigorexia), as opposed to a more slender body type. This work was borne out of the recognition that (i) eating disorders often emanate from the overvaluation of an ideal body type, (ii) eating disorders in male may be fundamentally different in nature to that observed in females, and (iii) the body type that is more often highly valued and internalized among males is a muscular and lean body, as opposed to a slender and thin body. Muscularity-oriented disordered eating refers to a constellation of disordered eating practices which occur in concert with a drive for greater muscularity.

C. Eating disorders have significantly increased in prevalence in the United **States in recent years**

- 56. A systematic review of the prevalence of eating disorders in the International Journal of Eating Disorders in 2001 noted the prevalence rate of anorexia nervosa to be 0.3%, whereas the prevalence rate for bulimia nervosa was reported to be 1%. ¹⁴ The prevalence of binge eating disorder was estimated to be approximately 1%.
- 57. A study assessing the point prevalence of bulimia nervosa in 1982,1992 and 2002 illustrated *declining* rates of prevalence over time¹⁵, up until 2002.

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¹⁴ Hoek, H. W., & van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. International Journal 383-396. of Eating Disorders, 34(4),https://doi.org/10.1002/eat.10222

¹⁵ KEEL PK, HEATHERTON TF, DORER DJ, JOINER TE, ZALTA AK. Point prevalence of bulimia nervosa in 1982, 1992, and 2002. Psychological Medicine. 2006;36(1):119-127. doi:10.1017/S0033291705006148

- 58. However, a landmark report in from data assessed in 2018-2019 estimated that <u>9%</u> of the US population will have an eating disorder (ED) in their lifetime, equating to **more than**28.8 million Americans. ¹⁶
- 59. This report, supported by the Academy of Eating Disorders, and undertaken by independent scholars at Harvard University's TH Chan School of Public Health and Deloitte Access Economics, also noted in terms of the people living in the United States in 2018-2019, 8.6% of females and 4.07% of males had already experienced an eating disorder in their lifetime. Among these EDs, OSFED was the most common ED experienced across an individual's lifetime.¹⁷
- 60. The figure below (Fig.1) illustrates the lifetime prevalence of EDs in [A] males and [B] females, delineated by age and illness subtype, in 2018-2019.¹⁸

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¹⁶ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating Disorders and the Academy for Eating Disorders. June 2020. Available at:

https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

¹⁷ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating Disorders and the Academy for Eating Disorders. June 2020. Available at: https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

¹⁸ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating Disorders and the Academy for Eating Disorders. June 2020. Available at: https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

Fig. 1 Lifetime Prevalence of Eating Disorders in [A] males and [B] females. AN (anorexia nervosa); BED (binge-eating disorder); BN (bulimia nervosa); OSFED (other specified feeding or eating disorder).

- 61. In terms of the one-year prevalence, the same landmark report estimated a one-year prevalence rate of 1.66% between 2018-2019 in the United States. One-year prevalence rates were estimated to be higher among females (2.62%) relative to males (0.67%). The most common ED subtype was OSFED, with a one-year prevalence of 1.18% for females and 0.27% for males. 19
- 62. When multiplying the age and gender stratified prevalence estimates by their respective groups in the US population, it was estimated that between 2018-2019, more than 5.5 million people had an ED in the United States.²⁰

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¹⁹ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating Disorders and the Academy for Eating Disorders. June 2020. Available https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

²⁰ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating the Academy for Eating Disorders. June and 2020. Available https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

63. The figure below (Fig. 2) illustrates the one-year prevalence rates of EDs in 2018-2019 among [A] males and [B] females, delineated by age and illness subtype.²¹

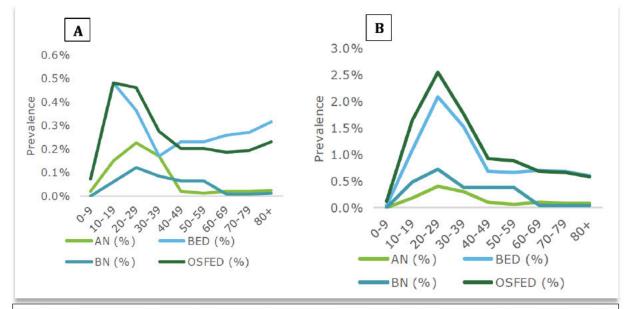


Fig. 2 One-year prevalence rates of EDs in 2018-2019 among [A] males and [B] females. AN (anorexia nervosa); BED (binge-eating disorder); BN (bulimia nervosa); OSFED (other specified feeding or eating disorder).

64. Cumulatively in 2020, it was estimated that 28.8 million Americans alive in 2018-2019 would have an ED at some point in their lifetime. At this time, it was noted that 21 million Americans had already had an ED in their lifetime, with a further 7.8 million Americans alive in 2018-2019 being expected to develop an ED in the future. Of these expected new cases of EDs, ~2 million will occur in children and adolescents.²²

²¹ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating Disorders and the Academy for Eating Disorders. June 2020. Available https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

²² Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating the Academy for Eating Disorders. June 2020. Available and https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

- 65. Importantly, these epidemiological data were surveilled and collated prior to the COVID-19 pandemic, and much evidence has now depicted increasing rates of eating disorder prevalence prior to and subsequent to the pandemic.
- For instance, as illustrated by the figure below, one study in 2021²³ demonstrated 66. the 2x increase in the rates of new admissions to a specialized inpatient eating disorder program since the onset of the COVID-19 pandemic in early 2020. Fig. 3 below illustrates the actual number of eating disorder patient admissions on a monthly basis since March 2017 (the blue line) followed by the sharp increase in monthly admissions (the red line) after COVID-19. This finding has been replicated by several other studies.24

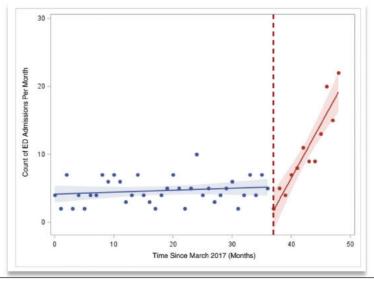


Fig. 3 Number of eating disorder patient admissions to a specialized eating disorder program on a monthly basis since March 2017.

²³ Alana K. Otto, Jessica M. Jary, Julie Sturza, Catherine A. Miller, Natalie Prohaska, Terrill Bravender, Jessica Van Huysse; Medical Admissions Among Adolescents With Eating Disorders During the COVID-19 Pandemic. Pediatrics October 2021; 148 (4): e2021052201. 10.1542/peds.2021-052201

²⁴ Hartman-Munick SM, Lin JA, Milliren CE, et al. Association of the COVID-19 Pandemic With Adolescent and Young Adult Eating Disorder Care Volume. JAMA Pediatr. 2022;176(12):1225-1232. doi:10.1001/jamapediatrics.2022.4346; Carly E. Milliren, Tracy K. Richmond, Joel D. Hudgins; Emergency Department Visits and Hospitalizations for Eating Disorders During the COVID-19 Pandemic. Pediatrics January 2023; 151 (1): e2022058198. 10.1542/peds.2022-058198

- In replicating these data, a recent meta-analysis which assessed 53 studies and more 67. than 36,000 patients recently concluded that that a 48% increase in inpatient eating disorder admissions had been observed since the onset of the COVID-19 pandemic.²⁵ Moreover, during this same time period a 36% increase in disease severity had been observed, indicating that in addition to becoming more widely prevalent, EDs have been intensifying in disease severity.
 - D. The increase in prevalence of a broad array of psychiatric subsequent to the onset of the global COVID-19 pandemic must be taken in the context of the globally recorded co-occurring increase in social media use during the global **COVID-19** pandemic.
- In a study of over 10,000 participants, the average reported increase in social media 68. use during the COVID-19 pandemic was 4.2 hours per week.²⁶ Moreover, nearly 40% of respondents indicated increasing their social media use by more than 3.5 hours per week during the COVID-19 pandemic.²⁷ Importantly, those under 30 years of age showed a much stronger tendency for increased social media use than respondents over 30 years of age - highlighting the particularly impactful nature of the COVID-19 pandemic in driving up social media use among young people.

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²⁵ J. Devoe, D., Han, A., Anderson, A., Katzman, D. K., Patten, S. B., Soumbasis, A., Flanagan, J., Paslakis, G., Vyver, E., Marcoux, G., & Dimitropoulos, G. (2022). The impact of the covid-19 pandemic on Eating disorders: A systematic review. International Journal of Eating Disorders, 56(1), 5-25. https://doi.org/10.1002/eat.23704

²⁶ Luo, T., Chen, W., & Liao, Y. (2021). Social media use in China before and during COVID-19: Preliminary results from an online retrospective survey. Journal of Psychiatric Research, 140, 35-38. https://doi.org/10.1016/j.jpsychires.2021.05.057

²⁷ Luo, T., Chen, W., & Liao, Y. (2021). Social media use in China before and during COVID-19: Preliminary results from an online retrospective survey. Journal of Psychiatric Research, 140, 35– 38. https://doi.org/10.1016/j.jpsychires.2021.05.057

- 69. In an international study spanning over 3,500 adults in Norway, UK, USA, and Australia – several times daily use of social media was reported by 56% of respondents prior to
- the onset of the COVID-19 pandemic, whereas this increased to 72% of respondents after the onset of the COVID-19 pandemic.²⁸
- 70. A study assessing how various dimensions of social media use (frequency, time spent, habitual use, social media enjoyment) changed during the pandemic noted a post-pandemic significant increase in (i) daily time spent on social media, (ii) habitual social media use, and (iii) addictive social media use among college students in the United States.²⁹ Moreover, this study found that (i) enjoyment from social media use declined during the pandemic – despite increasing usage, and the average emotional impact of social media use became more negative.³⁰
- 71. A systematic review and meta-analysis of more than 30 peer-reviewed studies published by September 2021 noted that social media use significantly increased among adolescents during the COVID-19 pandemic.³¹ In particular, these findings illustrated that approximately one third of adolescents used social media for more than 5 hours per day during the pandemic, while some reported social media use for up to 10 hours per day.

²⁸ Thygesen, H., Bonsaksen, T., Schoultz, M. et al. Use and self-perceived effects of social media before and after the COVID-19 outbreak: a cross-national study. Health Technol. 11, 1347–1357 (2021). https://doi.org/10.1007/s12553-021-00595-x

²⁹ Tuck AB, Thompson RJ Social Networking Site Use During the COVID-19 Pandemic and Its Associations With Social and Emotional Well-being in College Students: Survey Study. JMIR Form Res 2021;5(9):e26513. doi: 10.2196/26513

³⁰ Tuck AB, Thompson RJ Social Networking Site Use During the COVID-19 Pandemic and Its Associations With Social and Emotional Well-being in College Students: Survey Study. JMIR Form Res 2021;5(9):e26513. doi: 10.2196/26513

³¹ Marciano, L., Ostroumova, M., Schulz, P. J., & Camerini, A.-L. (2022). Digital Media use and adolescents' mental health during the COVID-19 pandemic: A systematic review and metaanalysis. Frontiers in Public Health, 9. https://doi.org/10.3389/fpubh.2021.793868

72. Empirical data from a separate study of American adults illustrated that within 2 weeks of the onset of the COVID-19 pandemic lockdown measures, 35% of the sample reported an increase in social media use.³² See Fig. 4 below for a summary. Importantly, while these data also illustrate an increase in methods of social support (e.g., text messages, phone calls) in the acute time period following the onset of the pandemic, the study does not offer data on how much each was increased by.³³

³² Nguyen, M. H., Gruber, J., Fuchs, J., Marler, W., Hunsaker, A., & Hargittai, E. (2020). Changes in digital communication during the COVID-19 global pandemic: Implications for digital inequality and future research. Social Media Society, 6(3). + https://doi.org/10.1177/2056305120948255

³³ Nguyen, M. H., Gruber, J., Fuchs, J., Marler, W., Hunsaker, A., & Hargittai, E. (2020). Changes in digital communication during the COVID-19 global pandemic: Implications for digital inequality and future Social Media Society, research. + 6(3). https://doi.org/10.1177/2056305120948255

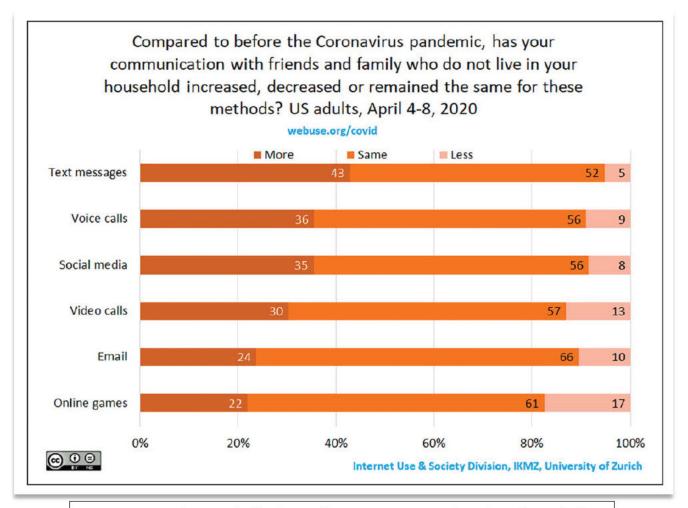


Fig. 4 Summary of communication time April 4-8, 2020, as compared to prior to the pandemic.

73. In terms of the elucidating the subpopulations most at risk for increasing social media use, data captured in a 2021 global survey indicates that the greatest social media use is reliably found in adolescents and young adults, and females in particular.³⁴ (Fig. 5)

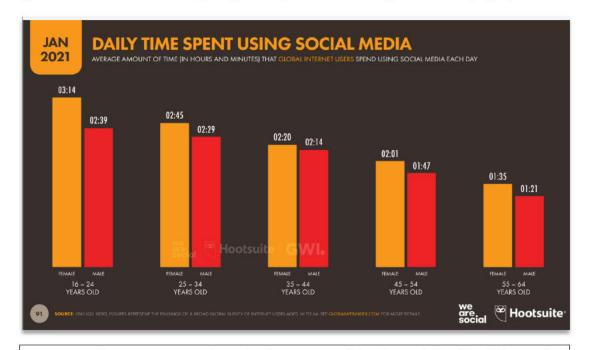


Fig. 5 Data from a 2021 survey shows that the greatest social media use is found in children and youth, and in females especially.

74. The same survey indicated that during 2020 alone, more than 1.3 million new users joined social media platforms per day.³⁵ This equates to over 15 new users every second throughout 2020.

³⁴ Kemp, S. (2021, October 22). Digital 2021: Global Overview Report - DataReportal - Global Digital Insights. DataReportal. https://datareportal.com/reports/digital-2021-global-overview-report

³⁵ Kemp, S. (2021, October 22). Digital 2021: Global Overview Report - DataReportal - Global Digital Insights. DataReportal. https://datareportal.com/reports/digital-2021-global-overview-report

- 75. In total, almost half a billion new users joined social media platforms in 2020 – representing a significant acceleration in the growth of social media, alongside the onset of the COVID-19 pandemic.³⁶
- It is broadly evident that social media use increased markedly during the global 76. COVID-19 pandemic, and the greatest increase was evident among children, adolescents and young adults. Given the robust body of evidence noting how social media use increases the risk of mental health-related harms, the globally reported increase in mental illness during the COVID-19 pandemic must be attributed, at least in part, as a result of this rapidly increasing social media use.

E. Eating disorders are highly costly psychiatric disorders

- 77. EDs are among the costliest psychiatric disorders, portending an estimated annual socioeconomic cost of more than US\$64.7 billion.
- 78. Total healthcare costs associated with EDs were estimated to be US\$4.6 billion in 2018.³⁷ Delineating costs by ED subtype illustrates that OSFED accounts for the greatest costs (US\$1.5 billion), in keeping with its standing as the most prevalent ED subtype, as outlined above. Following OSFED, BED accounts for US\$1.2 billion, AN accounts for US\$1.1 billion, and BN accounts for US\$0.8 billion.³⁸ A breakdown of direct healthcare costs is provided in Fig. 6 below.

³⁶ Kemp, S. (2021, October 22). Digital 2021: Global Overview Report - DataReportal – Global Digital Insights. DataReportal. https://datareportal.com/reports/digital-2021-global-overviewreport

³⁷ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating Disorders and the Academy for Eating Disorders. June 2020. Available at:

https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

³⁸ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating Disorders and the Academy for Eating Disorders. June 2020. Available at:

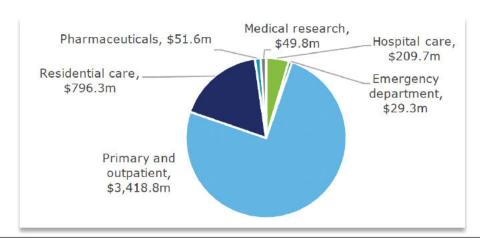


Fig. 6 Breakdown of healthcare costs associated with eating disorder in the U.S. in 2018.

- 79. Total costs outside the healthcare system in the United States were estimated to be US\$60.2 billion in 2018-2019. The largest of these costs was accounted for by OSFED (US\$22.8 billion), followed by BED (US\$19.4 billion), BN (US\$11.4 billion) and AN (US\$11.2 billion).³⁹
- 80. Productivity losses stemming from EDs is US\$48.6 billion annually in the United States. Of these costs, reduced employment accounts for US\$15.2 billion, and premature mortality, absenteeism and presenteeism accounts for roughly US\$8.8 billion, US\$6.4 billion, and US\$18.2 billion, respectively, as shown in Fig. 7.40

https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

³⁹ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating Disorders and the Academy for Eating Disorders. June 2020. Available at:

https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

⁴⁰ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating Disorders and the Academy for Eating Disorders. June 2020. Available at:

https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

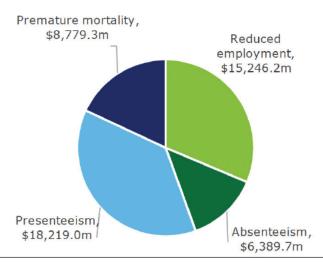


Fig. 7 Productivity losses stemming from eating disorders in the United States.

81. The majority of these costs is borne by individuals (37.9%), followed by employers (33.6%) and government (28.6%) as seen in Fig. 8.⁴¹

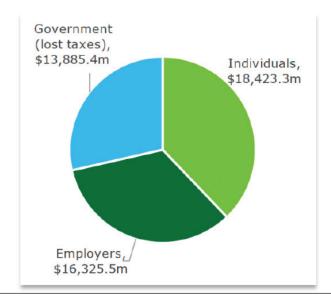


Fig. 8 Entities bearing costs for decreased productivity associated with eating disorders.

https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

⁴¹ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating Disorders and the Academy for Eating Disorders. June 2020. Available at:

- 82. In terms of indirect costs, EDs cost the United States 1.3 million disability adjusted life years (DALYs) in 2018-2019, which represents more than 1.2% of the total burden of disease in the United States.⁴²
- By converting DALYs to a monetized value using the well-established value per 83. statistical life (VSLY) metric, the total value of lost wellbeing in the United States in 2018-2019 was estimated to be US\$326.5 billion. This included US\$64.2 billion in years of life lost due to premature death, and US\$262.3 billion in years of healthy life lost due to disability. 43 Figure 9 below illustrates the loss of wellbeing costs, delineated by sex and age group, in the United States between 2018-2019.44

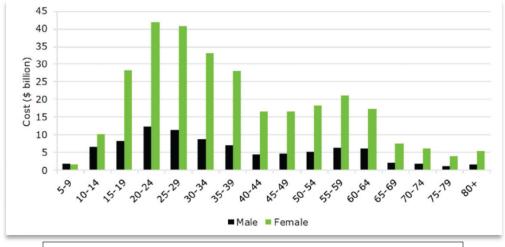


Fig. 9 Cost due to lost well-being per age group in the U.S. in 2018-2019.

⁴² Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating and the Academy for Eating Disorders. June 2020. Available https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

⁴³ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating for Eating Disorders. Disorders and the Academy June 2020. Available https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

⁴⁴ Deloitte Access Economics. The Social and Economic Cost of Eating Disorders in the United States of America: A Report for the Strategic Training Initiative for the Prevention of Eating the Academy for Eating Disorders. June 2020. Available and https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/.

F. Eating disorders disproportionately affect young people

84. Eating disorder cases have been documented in medical literature from as young as age 6 years of age. However, in terms of the most common age of onset, it is well appreciated that AN most typically first develops during adolescence. Empirical data has illustrated a bimodal distribution of the age of onset, peaking twice during adolescence – once at age 14 years of age, and again at 18 years of age.⁴⁵ Younger patients are typically hospitalized earlier after illness onset.⁴⁶

VI. Treatment of Eating Disorders

- A. The treatment of eating disorders requires multidisciplinary care from a team of specialized providers
- 85. Owing to the multisystemic nature of EDs, a multidisciplinary approach to treatment is vital. This team routinely includes specialized providers in the fields of (i) psychology, (ii) psychiatry, (iii) nutrition, (iv) social work, (v) nursing, (vi) gastroenterology, (vii) pediatrics, (viii) internal medicine, and more in atypical complications arise (Fig. 10).

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⁴⁵ Halmi, K. A., Casper, R. C., Eckert, E. D., Goldberg, S. C., & Davis, J. M. (1979). Unique features associated with age of onset of anorexia nervosa. Psychiatry Research, 1(2), 209–215. https://doi.org/10.1016/0165-1781(79)90063-5

⁴⁶ Halmi, K. A., Casper, R. C., Eckert, E. D., Goldberg, S. C., & Davis, J. M. (1979). Unique features associated with age of onset of anorexia nervosa. Psychiatry Research, 1(2), 209–215. https://doi.org/10.1016/0165-1781(79)90063-5



Fig. 10 Multidisciplinary treatment approach.

- B. The treatment of eating disorders may involve a spectrum of care which varies in intensity and invasiveness
- 86. Historically, ED care involved once-weekly outpatient psychotherapy, or when needed, inpatient lifesaving medical stabilization. However, the gulf in treatment intensity between immersive 24-hour inpatient support and once weekly psychotherapy rendered high rates of relapse upon discharge from inpatient hospital settings – since many patients require intermediary support. 47 To that end, a stepped model of care emerged, offering varying 'levels of care' ranging in treatment intensity from (i) inpatient care, or residential care, which involves 24-hour roundthe-clock hospital care, (ii) partial hospital programming (PHP), which involves 6-10 hours of treatment per day, for up to 5 days per week, (iii) intensive outpatient programming (IOP), which involves 3-5 hours of treatment per day, for 3-5 days per week, and (iv) outpatient care, which

⁴⁷ Pehlivan, M.J., Miskovic-Wheatley, J., Le, A. et al. Models of care for eating disorders: findings from a rapid review. J Eat Disord 10, 166 (2022). https://doi.org/10.1186/s40337-022-00671-1

involves 1 hour of treatment per week.⁴⁸ (Fig. 11). This stepped care model allows for treatment intensity to be calibrated according to symptom severity, and may be titrated upwardly or downwardly depending on illness acuity.

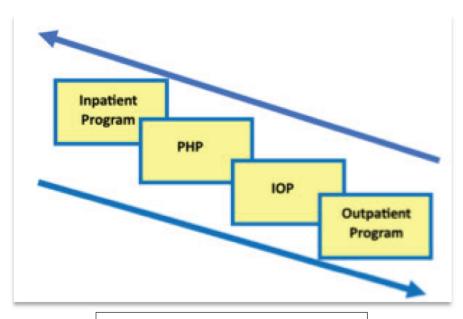


Fig. 11 Stepped model of eating disorder care.

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⁴⁸ Pehlivan, M.J., Miskovic-Wheatley, J., Le, A. et al. Models of care for eating disorders: findings from a rapid review. J Eat Disord 10, 166 (2022). https://doi.org/10.1186/s40337-022-00671-1

87. For severe eating disorders which require either residential or inpatient treatment, a step down to a lower level of care is most often recommended. Patients typically transition through levels of care over a period of many months, with transition through levels of care being gated by illness severity. 49 (see Fig. 12).

When to refer to Intensive Inpatient:	 There are many factors to consider at this level, including the consideration of age (adult, or child/adolescent). Overall, these patients are not medically stable. The patient is experiencing acute medical complications of malnutrition including dehydration, cardiovascular complications and hypothermia. The patient is experiencing acute food refusal and requires tube feeding.
When to refer to Residential:	 The patient is medically stable and does not require intensive medical intervention. The patient is psychiatrically impaired and unable to respond to partial hospitalization or outpatient treatment, or has relapsed after several inpatient hospitalizations.
When to refer to Partial Hospitalization:	 Distinctions from Inpatient: The patient is medically stable, sometimes approaching a past weight at which point they became medically unstable. The patient does not engage in eating disorder behavior overnight or has established support structures to facilitate this goal. The patient no longer requires the intensity of a higher level of care but is unable to manage in outpatient care without daily contact and substantial meal support. Similarities to Inpatient: The patient experiences social, educational and/or vocational setting impairments. The patient requires daily assessment of physiological and mental status. The patient engages in daily eating disorder behaviors.
When to refer to Intensive Outpatient:	 Distinctions from PHP The patient has not responded to outpatient care, but symptoms are not at the intensity or frequency to warrant PHP. The patient no longer requires intensity of a higher level of care but is unable to manage in outpatient care without frequent contact and meal support. The patient can function in their social, educational or vocational environment while in treatment. Similarities to PHP The patient is medically stable.

Fig. 12 Levels of care for patients with eating disorders.

88. Overall, and when considering the relapsing course of eating disorders, treatment for eating disorders may take many years.

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⁴⁹ Pehlivan, M.J., Miskovic-Wheatley, J., Le, A. et al. Models of care for eating disorders: findings from a rapid review. J Eat Disord 10, 166 (2022). https://doi.org/10.1186/s40337-022-00671-1

C. Specialized eating disorder treatment is hard to access

89. Specialized eating disorder care is hard to come by, even in major metropolitan areas in the United States. To that end, evidence suggests that the overwhelming majority of patients are not able to access specialized eating disorder care once their illness has developed. The average duration of untreated eating disorder in treatment-seeking populations (e.g., those looking for treatment) ranges from 2.5 - 6.5 years. Not surprisingly, a longer duration of untreated ED is associated with worse clinical outcomes for patients. 51

D. The majority of patients with eating disorders do not recover in treatment, even with leading specialized treatments

90. Even when receiving leading-edge evidence-based treatment, the rates of symptom remission and illness recovery are bleak, ranging at best from approximately 50% remission by end-of-treatment for adults with binge eating disorder, to less than 15% of adults with anorexia nervosa. With specific regard to adults with AN and BN, no FDA-approved medications exist, and no gold standard treatments have been allocated by clinical guidelines. Among children and adolescents, fewer clinical trials have been undertaken for BED and BN, although remission rates

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⁵⁰ Austin, A., Flynn, M., Richards, K., Hodsoll, J., Duarte, T. A., Robinson, P., Kelly, J., & Schmidt, U. (2020). Duration of untreated eating disorder and relationship to outcomes: A systematic review of the literature. European Eating Disorders Review, 29(3), 329–345. https://doi.org/10.1002/erv.2745;

Austin, A., Flynn, M., Richards, K., Hodsoll, J., Duarte, T. A., Robinson, P., Kelly, J., & Schmidt, U. (2020). Duration of untreated eating disorder and relationship to outcomes: A systematic review of the literature. European Eating Disorders Review, 29(3), 329–345. https://doi.org/10.1002/erv.2745;

⁵² Watson HJ, Bulik CM. Update on the treatment of anorexia nervosa: review of clinical trials, practice guidelines and emerging interventions. Psychological Medicine. 2013;43(12):2477-2500. doi:10.1017/S0033291712002620; Linardon, J., Wade, T. D., de la Piedad Garcia, X., & Brennan, L. (2017). The efficacy of cognitive-behavioral therapy for eating disorders: A systematic review and meta-analysis. Journal of Consulting and Clinical Psychology, 85(11), 1080–1094. https://doi.org/10.1037/ccp0000245

for AN improve to approximately 30% by end-of-treatment. Common across all age groups, and all eating disorder subtypes -is that even in the context of leading-edge treatments, the majority of patients will not recover.

- 91. A recent meta-analysis assessing randomized controlled trials for the treatment of AN between 1980-2019 suggests that (i) specialized treatments for adult AN do not outperform treatment as usual in terms of patient remission rates, and moreover, (ii) patient outcomes are not incrementally improving over time. These data illustrate the plateau which has been reached for treatment outcomes and remission rates for adult AN.⁵³ Importantly, evidence has reliably illustrated that early intervention portends more favorable outcomes, particularly during adolescence.⁵⁴
- 92. It is evident and generally broadly accepted in the eating disorders field that recovery from anorexia nervosa is exceedingly difficult, whereas remission rates are slightly more favorable albeit still exceedingly difficult, for bulimia nervosa and binge eating disorder. In all instances, specialized treatments are most likely to portend recovery if administered during adolescence or young adulthood, and when the illness duration is still in a relatively acute phase.

E. Eating disorders can be highly chronic, treatment refractory and relapsing disorders

93. Reflecting the chronicity of EDs, recent survival analyses for AN have illustrated that even after 12 years after disease onset, there is a 65% likelihood of being not recovered (e.g.,

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⁵³ Murray SB, Quintana DS, Loeb KL, Griffiths S, Le Grange D. Treatment outcomes for anorexia nervosa: a systematic review and meta-analysis of randomized controlled trials. Psychological Medicine. 2019;49(4):535-544. doi:10.1017/S0033291718002088

⁵⁴ Treasure J, Russell G. The case for early intervention in anorexia nervosa: theoretical exploration of maintaining factors. British Journal of Psychiatry. 2011;199(1):5-7. doi:10.1192/bjp.bp.110.087585

still symptomatic).⁵⁵ This finding was recently extended further to assess remission status after 22 years, and sadly, even after 22 years post-disease onset, there is a 60% chance of remaining unrecovered.⁵⁶

94. For bulimia nervosa, while remission has been observed in approximately 60-70% by 12-year follow-up (Fig. 13)⁵⁷, longitudinal data 22 years after illness onset illustrate remission rates of 42% - meaning that 58% of those with bulimia nervosa had not recovered after more than two decades.⁵⁸

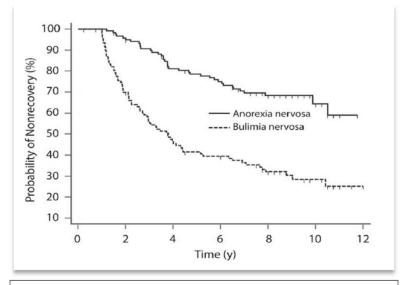


Fig. 13 Probability of recovery over time after eating disorder onset.

⁵⁵ Eddy, K. T., Tabri, N., Thomas, J. J., Murray, H. B., Keshaviah, A., Hastings, E., Edkins, K., Krishna, M., Herzog, D. B., Keel, P. K., & Franko, D. L. (2016). Recovery from anorexia nervosa and bulimia nervosa at 22-year follow-up. The Journal of Clinical Psychiatry, 78(02), 184–189. https://doi.org/10.4088/jcp.15m10393

⁵⁶ Fichter, M. M., Quadflieg, N., Crosby, R. D., & Koch, S. (2017). Long-term outcome of anorexia nervosa: Results from a large clinical longitudinal study. International Journal of Eating Disorders, 50(9), 1018–1030. https://doi.org/10.1002/eat.22736

⁵⁷ Eddy, K. T., Tabri, N., Thomas, J. J., Murray, H. B., Keshaviah, A., Hastings, E., Edkins, K., Krishna, M., Herzog, D. B., Keel, P. K., & Franko, D. L. (2016). Recovery from anorexia nervosa and bulimia nervosa at 22-year follow-up. The Journal of Clinical Psychiatry, 78(02), 184–189. https://doi.org/10.4088/jcp.15m10393

⁵⁸ Quadflieg, N., & Fichter, M. M. (2019). Long-term outcome of inpatients with bulimia nervosa—results from the christina barz study. International Journal of Eating Disorders, 52(7), 834–845. https://doi.org/10.1002/eat.23084

- 95. Even though it is a statistical minority of patients which experience full symptom remission throughout treatment, more than a third of those who recover will relapse within the first 18 months.⁵⁹ Longer-term follow-up has generally revealed relapse rates up to 50% in AN, 40% for OSFED, and 30% for BN and BED.⁶⁰
- 96. Eating disorders across the entire diagnostic spectrum can be highly chronic, treatment-refractory conditions. Even among those who recover, high rates of relapse are evident meaning that those who have recovered from eating disorders need to be vigilant around relapse prevention for years after the original presentation has been treated.

VII. Eating Disorders Cause Permanent Physical Damage

A. Eating disorders are among the most lethal of all psychiatric disorders

97. For many years, anorexia nervosa demonstrated the highest mortality ratio of any psychiatric disorder. A standardized mortality ratio refers to the comparison of the number of observed deaths in a study population (e.g., those with anorexia nervosa) with the number of deaths that would be expected based on age and sex-specific mortality rates of a standard populations (e.g., those without anorexia nervosa). In 2011, a landmark meta-analysis noted a standardized mortality ratio of 5.9 for AN, 1.9 for BN, and 1.9 for OSFED.⁶¹ This standardized mortality ratio

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⁵⁹ Keel, P. K., Dorer, D. J., Franko, D. L., Jackson, S. C., & Herzog, D. B. (2005). Postremission predictors of relapse in women with eating disorders. American Journal of Psychiatry, 162(12), 2263–2268. https://doi.org/10.1176/appi.ajp.162.12.2263

⁶⁰ Sala, M., Keshishian, A., Song, S., Moskowitz, R., Bulik, C. M., Roos, C. R., & Levinson, C. A. (2023). Predictors of relapse in eating disorders: A meta-analysis. Journal of Psychiatric Research, 158, 281–299. https://doi.org/10.1016/j.jpsychires.2023.01.002

⁶¹ Arcelus, J., Mitchell, A. J., Wales, J., & Nielsen, S. (2011). Mortality rates in patients with anorexia nervosa and other eating disorders. Archives of General Psychiatry, 68(7), 724. https://doi.org/10.1001/archgenpsychiatry.2011.74

for AN was more than double that of schizophrenia, and more than triple that of bipolar and unipolar disorder (Fig. 14).⁶²

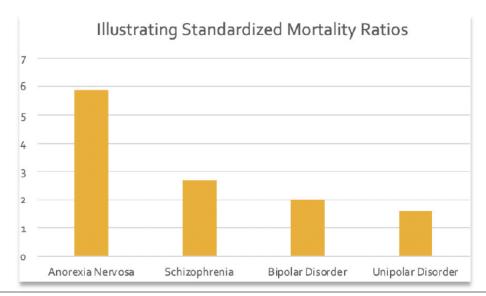


Fig. 14 Comparison of mortality ratios for anorexia nervosa, schizophrenia, bipolar disorder and unipolar disorder.

98. More recently, and owing to changes in cause-of-death reporting policy, revised mortality rates have been recently offered. Historically, cause of death has been attributed to the medical symptoms of EDs, rather than EDs themselves - leading to underreported mortality rates. That is, if a patient with AN suffers a starvation-related cardiac arrest and dies, the cause of death is listed as a cardiac arrest – despite abundant data illustrating the cardiac complications caused by AN. In light of this revised reporting around cause-of-death, which permits EDs to be listed as a primary cause of death, a 2024 study noted a standardized mortality ratio of 21.7 for adolescent

⁶² Arcelus, J., Mitchell, A. J., Wales, J., & Nielsen, S. (2011). Mortality rates in patients with anorexia nervosa and other eating disorders. Archives of General Psychiatry, 68(7), 724. https://doi.org/10.1001/archgenpsychiatry.2011.74

girls with AN⁶³ – that is to say that adolescent girls with AN are 21 more times likely to die prematurely - which is the highest reported mortality rate among any psychiatric illness.⁶⁴

Eating disorders impart multi-systemic organ damage, and are associated В. with broad medical sequalae

99. Eating disorders such as AN render impairment to bone health and metabolism (see Fig. 15) that are robustly associated with (i) lower bone mineral density, (ii) impaired bone quality, (iii) increased bone fracture risk, and (iv) lower bone strength. 65 The risk of bone fracture in AN is directly related to both the degree of weight loss and the duration of illness, although even in first episode, recent onset AN - a 10-fold increase in risk for bone fracture is evident. ⁶⁶ Over the

⁶³ Quadflieg, N., Naab, S., Fichter, M., & Voderholzer, U. (2024). Long-term outcome and mortality in adolescent girls 8 years after treatment for anorexia nervosa. International Journal of Eating Disorders, 57(12), 2497–2503. https://doi.org/10.1002/eat.24299

⁶⁴ Bahji, Anees BSc, MD; Cheng, Breagh BSc; Gray, Samantha BSc; Stuart, Heather MA, PhD. Mortality Among People With Opioid Use Disorder: A Systematic Review and Meta-analysis. Journal of Addiction Medicine 14(4):p e118-e132, July/August 2020. 10.1097/ADM.00000000000000606

⁶⁵ Misra, M., Golden, N. H., & Katzman, D. K. (2015). State of the art systematic review of bone disease in anorexia nervosa. International Journal of Eating Disorders, 49(3), 276-292. https://doi.org/10.1002/eat.22451

⁶⁶ Lopes, M. P., Ahmed, S., Beaman, L., Stubbs, B., Campbell, I. C., Schmidt, U., & Robinson, L. (2024). Bone Fracture history in women with first episode or with persistent anorexia nervosa. European Eating Disorders Review, 33(3), 447–459. https://doi.org/10.1002/erv.3153

longer term, AN is associated with a 46% increase in risk for any bone fracture (including fractures of the spine) for up to 40 years after illness onset.⁶⁷

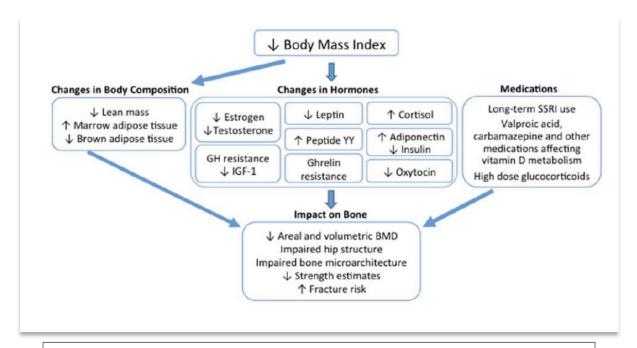


Fig. 15 Changes in body mass arising from EDs lead to changes in body composition and hormone levels and impact organs and organ systems.

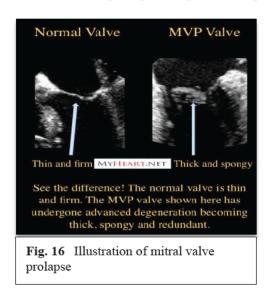
100. Bulimia nervosa is also characterized by lowered whole-body bone mineral density and lower lumbar spine bone mineral density⁶⁸, and patients remain at elevated risk for bone disease such as osteoporosis.⁶⁹

⁶⁷ Søeby, M., Gribsholt, S. B., Clausen, L., & Richelsen, B. (2023). Fracture risk in patients with anorexia nervosa over a 40-year period. Journal of Bone and Mineral Research, 38(11), 1586–1593. https://doi.org/10.1002/jbmr.4901

⁶⁸ Morris, J., Tothill, P., Gard, M., McPhail, K., Hannan, J., Cowen, S., & Freeman, C. (2004). Reduced bone mineral density in bulimia as well as anorexia nervosa. European Eating Disorders Review, 12(2), 71–78. https://doi.org/10.1002/erv.561; Robinson, L., Aldridge, V., Clark, E.M. et al. A systematic review and meta-analysis of the association between eating disorders and bone density. Osteoporos Int 27, 1953–1966 (2016). https://doi.org/10.1007/s00198-015-3468-4

⁶⁹ Sagar, A. (2005). Long Term Health Risks Due to Impaired Nutrition in Women with a Past History of Bulimia Nervosa. Nutrition Noteworthy, 7(1). Retrieved from https://escholarship.org/uc/item/6vt2k42t

- 101. In terms of **cardiac health**, meta-analyses and systematic reviews have consistently illustrated that AN is robustly associated with bradycardia, and perturbations in heart rate variability including QT interval prolongation which may degenerate into ventricular arrythmias such as Torsades des Pointes, or ventricular fibrillation.⁷⁰ In turn, these arrythmias are associated with sudden cardiac death, and require monitoring in a medical unit.⁷¹
- 102. Moreover, AN is associated with reductions in cardiac volume, reductions in cardiac mass, and decreased cardiac output.⁷² Importantly, AN is associated with an elevated risk of mitral valve prolapse (Fig. 16) and pericardial effusion (Fig. 17).



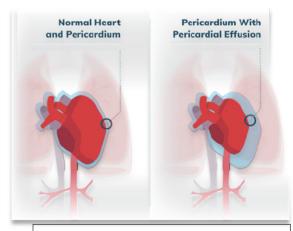


Fig. 17 Illustration of pericardial effusion.

103. Importantly, the risk for adverse cardiac events is not immediately ameliorated upon the reversal of self-directed starvation and the restoration of patient weight. For up to 10

⁷⁰ Giovinazzo, S., Sukkar, S.G., Rosa, G.M. et al. Anorexia nervosa and heart disease: a systematic review. Eat Weight Disord 24, 199–207 (2019). https://doi.org/10.1007/s40519-018-0567-1

⁷¹ Israel, C. W. (2014). Mechanisms of sudden cardiac death. Indian Heart Journal, 66. https://doi.org/10.1016/j.ihj.2014.01.005

⁷² Giovinazzo, S., Sukkar, S.G., Rosa, G.M. et al. Anorexia nervosa and heart disease: a systematic review. Eat Weight Disord 24, 199–207 (2019). https://doi.org/10.1007/s40519-018-0567-1

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years following illness onset, those with AN demonstrate a significantly increased risk of congestive heart failure, conduction disorder, and structural heart disease (Fig. 18).⁷³

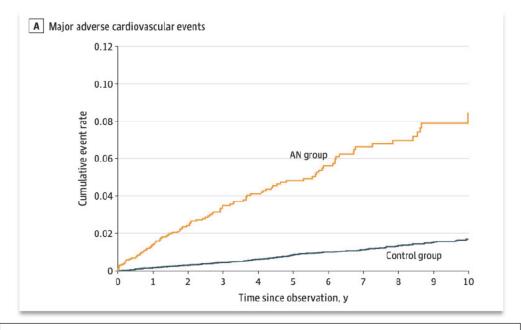


Fig. 18 Increased risk of major cardiovascular events over time for individuals with anorexia nervosa as compared to a control group.

104. Bulimia nervosa is also associated with long-term risk of cardiovascular disease, including a six-fold increased risk for ischemic heart disease, a seven-fold increased risk for atherosclerosis, a three-fold increased risk of cardiac conduction disorder.⁷⁴ Moreover, BN is associated with a 22-fold increased risk of myocardial infarction by 2-year follow-up, and a 14fold increased risk of myocardial infarction by 5-year follow-up. The figure below (Fig. 19) illustrates the cumulatively much higher incidence of cardiac events resulting in death or

⁷³ Tseng MM, Chiou K, Shao JY, Liu H. Incidence and Risk of Cardiovascular Outcomes in Patients With Anorexia Nervosa. JAMA Netw Open. 2024;7(12):e2451094. doi:10.1001/jamanetworkopen.2024.51094

⁷⁴ Tith RM, Paradis G, Potter BJ, et al. Association of Bulimia Nervosa With Long-term Risk of Cardiovascular Disease and Mortality Among Women. JAMA Psychiatry. 2020;77(1):44-51. doi:10.1001/jamapsychiatry.2019.2914

hospitalization among women with BN, relative to a control group - which in this instance is cardiac events among pregnant women.⁷⁵

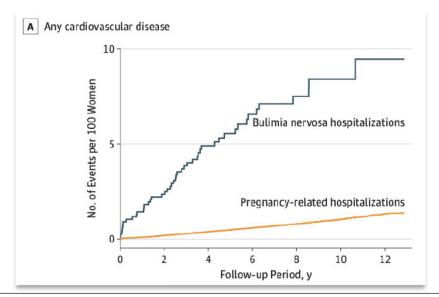


Fig. 19 The cumulative Incidence of Any Cardiovascular Disease and Death Among Women With and Without Bulimia Nervosa

In terms of pulmonary health, multiple case reports have shown emphysema 105. among those with anorexia nervosa – even among AN patients without a smoking history.⁷⁶ Moreover, diffusion capacity of the lungs for carbon monoxide, as well as lung diffusion capacity for oxygen, have been to progressively worsen with AN illness duration.⁷⁷ Two potentially lifethreatening complications of AN include pneumothorax and pneumomediastinum.⁷⁸

⁷⁵ Tith RM, Paradis G, Potter BJ, et al. Association of Bulimia Nervosa With Long-term Risk of Cardiovascular Disease and Mortality Among Women. JAMA Psychiatry. 2020;77(1):44-51. doi:10.1001/jamapsychiatry.2019.2914

⁷⁶ Mehler, P.S., Brown, C. Anorexia nervosa – medical complications. J Eat Disord 3, 11 (2015). https://doi.org/10.1186/s40337-015-0040-8

⁷⁷Gardini Gardenghi, G., Boni, E., Todisco, P., Manara, F., Borghesi, A., & Tantucci, C. (2009). Respiratory function in patients with stable anorexia nervosa. Chest, 136(5), 1356-1363. https://doi.org/10.1378/chest.08-3020

⁷⁸ Mehler, P.S., Brown, C. Anorexia nervosa – medical complications. J Eat Disord 3, 11 (2015). https://doi.org/10.1186/s40337-015-0040-8

- Among those with BN, aspiration of regurgitated food presents a significant risk factor, as lung tissue can be damaged, scarring may occur, and infections including pneumonia may develop. Additional complications stemming from self-directed purging behaviors include pneumomediastinum – which is the dissection of the air through the alveolar walls wherein air accumulates between the lungs and heart, due to retching.⁷⁹
- 107. In terms of **hematologic health**, bone marrow is adversely affected by AN, with red blood cells, white blood cells and platelets all being impacted. In particular, anemia and leukopenia (low white blood cell count) occur in approximately one third of those with AN, and thrombocytopenia (low platelet count) occurs in approximately 10% of those with AN – with disease severity worsening alongside a reduction in patient bodyweight and BMI.⁸⁰
- 108. In terms of **endocrine health**, a number of abnormalities have been reliably observed in those with AN. The secretion rates of cortisol are elevated, but the metabolic clearance rates are lowered – meaning that the half-life of cortisol is elevated for those with AN.81 These effects can result in heightened blood pressure and weight gain, weakened immune system and other metabolic disruptions.
- Levels of growth hormone are often elevated in those with AN, but the levels of insulin like growth factor are decreased, indicating growth hormone resistance.⁸²

⁷⁹ Mehler, P.S., Rylander, M. Bulimia Nervosa – medical complications. J Eat Disord 3, 12 (2015). https://doi.org/10.1186/s40337-015-0044-4

⁸⁰ Mehler, P.S., Brown, C. Anorexia nervosa – medical complications. J Eat Disord 3, 11 (2015). https://doi.org/10.1186/s40337-015-0040-8

⁸¹ Lo Sauro, C., Ravaldi, C., Cabras, P. L., Faravelli, C., & Ricca, V. (2008). Stress, hypothalamiceating disorders. Neuropsychobiology, pituitary-adrenal axis and 57(3), https://doi.org/10.1159/000138912

⁸² Bruno Estour, Natacha Germain, Eric Diconne, Delphine Frere, Jean-Marie Cottet-Emard, Guy Carrot, Francois Lang, Bogdan Galusca, Hormonal Profile Heterogeneity and Short-Term Physical

- 110. Thyroid hormones are also abnormal in AN, and the characteristic profile of lowered total thyroxine (T_4) and triiodothyronine (T_3) resembles that of euthyroid sick syndrome.⁸³ The levels of triiodothyronine (T_3) decrease linearly alongside the reduction in bodyweight and BMI.⁸⁴
- 111. In severe cases of AN, hypoglycemia (low blood glucose (sugar)) is often observed, as a result of the depletion of hepatic glycogen stores and the disruption of hepatic gluconeogenesis.⁸⁵ Hyperglycemia is irrefutably associated with premature microvascular complications leading to conditions including diabetic neuropathy, retinopathy and nephropathy.⁸⁶

VIII. Eating Disorders are Associated with Mental Harms

A. Eating disorders are associated with elevated suicidality

112. Up to 43% of people with restrictive eating disorders such as AN endorse current suicidal ideation⁸⁷, and more than 25% will have a suicide attempt during the course of their

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Risk in Restrictive Anorexia Nervosa, The Journal of Clinical Endocrinology & Metabolism, Volume 95, Issue 5, 1 May 2010, Pages 2203–2210, https://doi.org/10.1210/jc.2009-2608

⁸³ Mehler, P.S., Brown, C. Anorexia nervosa – medical complications. J Eat Disord 3, 11 (2015). https://doi.org/10.1186/s40337-015-0040-8

 $^{^{84}}$ Mehler, P.S., Brown, C. Anorexia nervosa – medical complications. J Eat Disord 3, 11 (2015). https://doi.org/10.1186/s40337-015-0040-8

 $^{^{85}}$ Mehler, P.S., Brown, C. Anorexia nervosa – medical complications. J Eat Disord 3, 11 (2015). https://doi.org/10.1186/s40337-015-0040-8

⁸⁶ Orasanu, G., & Plutzky, J. (2009b). The pathologic continuum of diabetic vascular disease. Journal of the American College of Cardiology, 53(5). https://doi.org/10.1016/j.jacc.2008.09.055

⁸⁷ Favaro A, Santonastaso P. Suicidality in eating disorders: clinical and psychological correlates. Acta Psychiatr Scand. 1997;95(6):508-514.

illness. 88 While suicide is the twelfth leading cause of death in the general population, those with AN are 18-57 times more likely to die by suicide than those in the general population.⁸⁹

Among adolescents and adults with bulimia nervosa, more than 44-53% report 113. current suicidal ideation⁹⁰, 24-26% report having a current suicide plan, and 21-35% report having previously had a serious suicide attempt.⁹¹ More than 17% of adolescents and adults with BN report having had multiple previous suicide attempts. 92 Most typically, suicidal ideation develops after the development of BN, and is usually reported within 2 years of illness onset, where the development and execution of a plan and suicide attempt most commonly emerges within 2-4 years of illness onset.93

⁸⁸ Arcelus J, Mitchell AJ, Wales J, Nielsen S. Mortality Rates in Patients With Anorexia Nervosa and Other Eating Disorders: A Meta-analysis of 36 Studies. Arch Gen Psychiatry. 2011;68(7):724-731.

⁸⁹ Keshaviah A, Edkins K, Hastings ER, et al. Re-examining premature mortality in anorexia nervosa: a

meta-analysis redux. Compr Psychiatry. 2014;55(8):1773-1784; Preti A, Rocchi MBL, Sisti D, Camboni MV, Miotto P. A comprehensive meta-analysis of the risk of suicide in eating disorders. Acta Psychiatr Scand. 2011;124(1):6-17; and Keel PK, Dorer DJ, Eddy KT, Franko D, Charatan Eating DL, Herzog **Predictors** Mortality Disorders. Arch DB. of Psychiatry. 2003;60(2):179–183. doi:10.1001/archpsyc.60.2.179

⁹⁰ Crow, S. J., Swanson, S. A., le Grange, D., Feig, E. H., & Merikangas, K. R. (2014). Suicidal behavior in adolescents and adults with bulimia nervosa. Comprehensive Psychiatry, 55(7), 1534– 1539. https://doi.org/10.1016/j.comppsych.2014.05.021

⁹¹ Forcano, L., Fernández-Aranda, F., Álvarez-Moya, E., Bulik, C., Granero, R., Gratacòs, M., ... Estivill, X. (2009). Suicide attempts in bulimia nervosa: Personality and psychopathological correlates. European Psychiatry, 24(2), 91–97. doi:10.1016/j.eurpsy.2008.10.002

⁹² Crow, S. J., Swanson, S. A., le Grange, D., Feig, E. H., & Merikangas, K. R. (2014). Suicidal behavior in adolescents and adults with bulimia nervosa. Comprehensive Psychiatry, 55(7), 1534– 1539. https://doi.org/10.1016/j.comppsych.2014.05.021

⁹³ Crow, S. J., Swanson, S. A., le Grange, D., Feig, E. H., & Merikangas, K. R. (2014). Suicidal behavior in adolescents and adults with bulimia nervosa. Comprehensive Psychiatry, 55(7), 1534– 1539. https://doi.org/10.1016/j.comppsych.2014.05.021

Among adolescents and adults with binge eating disorder, more than 33-34% report 114. current suicidal ideation, 5-17% report having a current suicide plan, and 15% report having previously had a serious suicide attempt. 94 Up to 7% of those with BED report having had multiple previous suicide attempts.95

B. Eating disorders are associated with broader psychiatric sequalae

- Psychiatric comorbidity among those with eating disorders is the norm, and not the 115. exception. In a scoping review of over 200 peer-reviewed studies, evidence illustrates that anxiety disorders are present in up to 62% of those with eating disorders, mood disorders are present in up to 52% of those with eating disorders, substance use disorders are present in up to 27% of those with eating disorders, post-traumatic stress disorder is present in up to 27% of those with eating disorders, and bipolar disorder is present in up to 12% of those with eating disorders. 96
- 116. Moreover, non-suicidal self-injury – broadly defined as harm to one's body without the intent to die - is present in up to 64% of those with eating disorders. 97
- The temporal sequencing between eating disorder onset and psychiatric 117. comorbidities is complex. In some instances, it has been postulated that psychiatric comorbidities

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⁹⁴ Crow, S. J., Swanson, S. A., le Grange, D., Feig, E. H., & Merikangas, K. R. (2014). Suicidal behavior in adolescents and adults with bulimia nervosa. Comprehensive Psychiatry, 55(7), 1534– 1539. https://doi.org/10.1016/j.comppsych.2014.05.021

⁹⁵ Crow, S. J., Swanson, S. A., le Grange, D., Feig, E. H., & Merikangas, K. R. (2014). Suicidal behavior in adolescents and adults with bulimia nervosa. Comprehensive Psychiatry, 55(7), 1534– 1539. https://doi.org/10.1016/j.comppsych.2014.05.021

⁹⁶ Hambleton, A., Pepin, G., Le, A. et al. Psychiatric and medical comorbidities of eating disorders: findings from a rapid review of the literature. J Eat Disord 10, 132 (2022). https://doi.org/10.1186/s40337-022-00654-2

⁹⁷ Hambleton, A., Pepin, G., Le, A. et al. Psychiatric and medical comorbidities of eating disorders: findings from a rapid review of the literature. J Eat Disord 10, 132 (2022). https://doi.org/10.1186/s40337-022-00654-2

precede the development of eating disorders. 98 In other instances it has been postulated that eating disorder onset can contribute to the development of other psychiatric conditions, with data showing that those with eating disorders have much higher rates of psychiatric disorders relative to the general population, indicating that eating disorders may portend the onset of other psychiatric disorders.99

Eating Disorders Can Transform the Brain IX.

A. Eating disorders are associated with profound perturbations to brain structure and function

118. Globally, patients with AN demonstrate significantly lower volumes of total brain volume, total brain gray matter volume, and total brain white matter volume. 100 As a result of the atrophy of brain gray matter and white matter, those with AN demonstrate higher volumes of cerebrospinal fluid, and higher volume in brain ventricles. In short, the atrophy of functional brain gray and white matter allows for these empty spaces in the brain to become larger and fill up with more fluid.

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⁹⁸ Kaye, W. H., Bulik, C. M., Thornton, L., Barbarich, N., & Masters, K. (2004). Comorbidity of anxiety disorders with anorexia and bulimia nervosa. The American Journal of Psychiatry, 161(12), 2215-2221

⁹⁹ Hudson, J. I., Hiripi, E., Pope, H. G., & Kessler, R. C. (2007). The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. Biological Psychiatry, 61(3), 348-358.

¹⁰⁰ Boto, J., Gkinis, G., Roche, A. et al. Evaluating anorexia-related brain atrophy using MP2RAGE-based morphometry. Eur Radiol 27, 5064-5072 (2017).https://doi.org/10.1007/s00330-017-4914-9

Here, Fig. 20¹⁰¹ is a brain scan showing axial (a, b) and coronal (c, d) sections of a 119. 36-year-old AN patient's brain, illustrating profound atrophy in sections through the (a) centrum semiovale, (b) sylvian fissures, (c) third ventricle, and (d) posterior fossa. 102

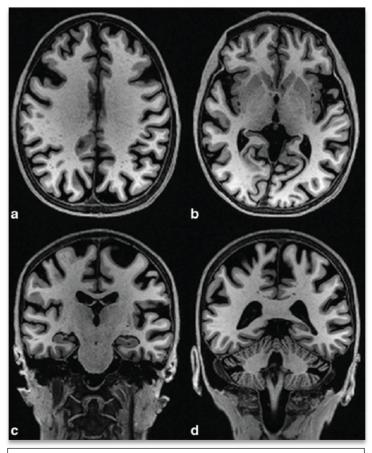


Fig. 20 Brain scan illustrating brain atrophy in a subject with AN.

the peer-reviewed collaborative Radiology Radiopaedia.org, Resource. (n.d.). https://radiopaedia.org/?lang=us

Boto, J., Gkinis, G., Roche, A. et al. Evaluating anorexia-related brain atrophy using MP2RAGE-based morphometry. Eur Radiol 27, 5064-5072 (2017).https://doi.org/10.1007/s00330-017-4914-9

120. Below these images, Fig. 21 illustrates axial and coronal sections of a non-disordered adult human brain for comparison, taken from Radiopedia – an open source online educational radiography resource.¹⁰³

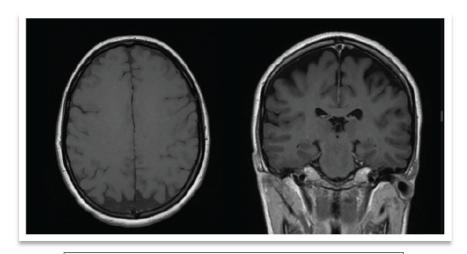


Fig. 21 Brain scan illustrating a healthy adult human brain.

121. With specific regards to the brain's **gray matter**, which refers to neurons or brain cells, adolescents with AN demonstrate an increasingly pervasive pattern of gray matter density and volume loss – which has historically been referred to as cortical atrophy. In the image below (Fig. 22), the hyper-bright regions represent cerebrospinal fluid (CSF). The reason that there is more CSF in the AN brains is due to gray matter atrophy - as the AN brain loses more functional

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Radiopaedia.org, the peer-reviewed collaborative Radiology Resource. (n.d.). https://radiopaedia.org/?lang=us

brain tissue, this dead space fills up with more CSF – which presents as larger hyper-bright regions on the scan above. 104

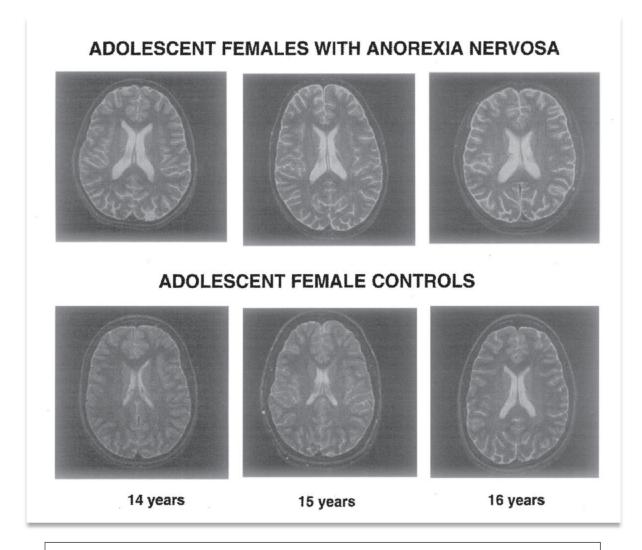


Fig. 22 Axial brain sections of a representative subject with anorexia nervosa showing atrophied regions filled with cerebrospinal fluid (bright areas), as compared to an age-matched control subject.

104 Katzman, D. K., Lambe, E. K., Mikulis, D. J., Ridgley, J. N., Goldbloom, D. S., & Zipursky, R. B. (1996). Cerebral gray matter and white matter volume deficits in adolescent girls with anorexia nervosa. The Journal of Pediatrics, 129(6), 794-803. https://doi.org/10.1016/s0022-

3476(96)70021-5

122. In terms of localization, the greatest reductions in gray matter volume (GMV) in subjects with AN are observed in frontal, temporal and parietal areas. ¹⁰⁵ Importantly, patient BMI was associated with the degree of GMV loss in the parietal, frontal, temporal and cingulate lobes. The table below in Fig. 23 displays the localized comparison of GMV in AN (orange line) and atypical AN (blue line), relative to controls. 106 Data points left of the middle reflect lower GMV.

¹⁰⁵ Lyall, A. E., Breithaupt, L., Ji, C., Haidar, A., Kotler, E., Becker, K. R., Plessow, F., Slattery, M., Thomas, J. J., Holsen, L. M., Misra, M., Eddy, K. T., & Lawson, E. A. (2024). Lower regionspecific gray matter volume in females with atypical anorexia nervosa and anorexia nervosa. International Journal of Eating Disorders, 57(4), 951–966. https://doi.org/10.1002/eat.24168

¹⁰⁶ Lyall, A. E., Breithaupt, L., Ji, C., Haidar, A., Kotler, E., Becker, K. R., Plessow, F., Slattery, M., Thomas, J. J., Holsen, L. M., Misra, M., Eddy, K. T., & Lawson, E. A. (2024). Lower regionspecific gray matter volume in females with atypical anorexia nervosa and anorexia nervosa. International Journal of Eating Disorders, 57(4), 951–966. https://doi.org/10.1002/eat.24168

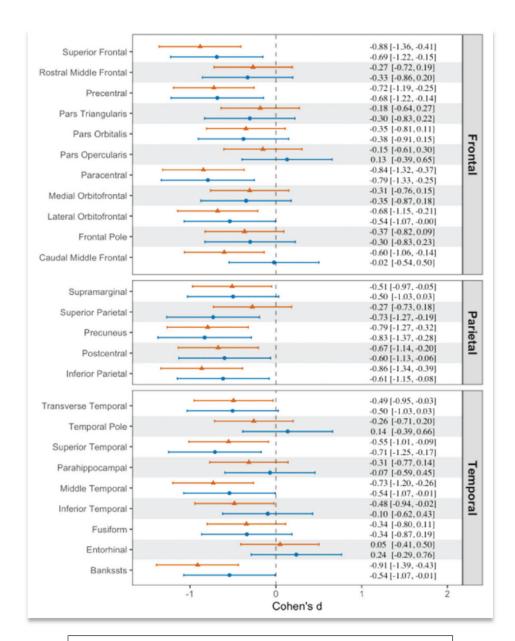


Fig. 23 Comparison of gray matter volume in subjects with anorexia nervosa (orange) and atypical anorexia nervosa (blue) with controls by brain region relative to controls at zero.

123. The assessment of adolescents with recent onset AN (i.e., an illness history of less than 12 months) demonstrates pervasive patterns of gray matter density loss. The image in Fig. 24 below represents all brain regions showing reduced gray matter density evident within 12 months of illness onset in adolescents. 107

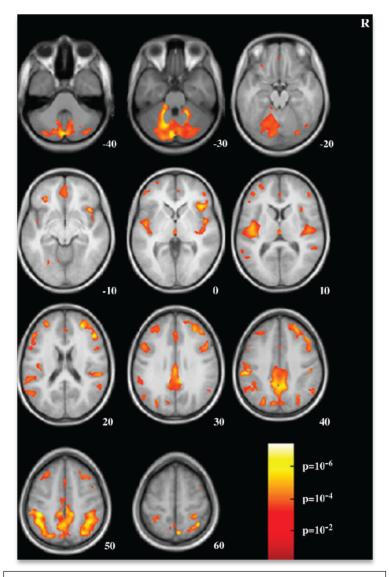


Fig. 24 Reduction in gray matter 12 months after onset of AN.

¹⁰⁷ Gaudio, S., Nocchi, F., Franchin, T., Genovese, E., Cannatà, V., Longo, D., & Fariello, G. (2011). Gray matter decrease distribution in the early stages of anorexia nervosa restrictive type in adolescents. Psychiatry Research: Neuroimaging, 24-30. 191(1), https://doi.org/10.1016/j.pscychresns.2010.06.007

124. Data are mixed as to the extent to which structural brain changes can be reversed in subjects with AN upon weight restoration. Among adolescents and young adults with AN, early evidence suggested that while the white matter alterations observed during the starvation state may be almost fully ameliorated upon weight restoration 108, the alterations observed in relation to gray matter and CSF are not fully reversed upon weight restoration (Fig. 25). 109 The persistence of significantly elevated CSF volumes, and significantly decreased total gray matter suggests long lasting structural brain alterations.

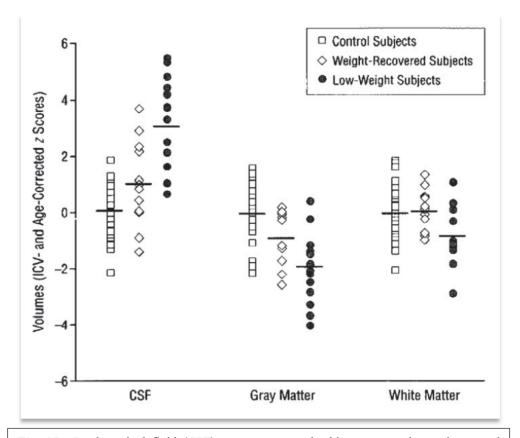


Fig. 25 Cerebrospinal fluid (CSF), gray matter and white matter volumes in control subjects as compared to weight-recovered and low-weight (AN) subjects.

¹⁰⁸ Lambe EK, Katzman DK, Mikulis DJ, Kennedy SH, Zipursky RB. Cerebral Gray Matter **Deficits** After Weight Recovery From Anorexia Nervosa. Arch Psychiatry. 1997;54(6):537-542. doi:10.1001/archpsyc.1997.01830180055006

¹⁰⁹ Lambe EK, Katzman DK, Mikulis DJ, Kennedy SH, Zipursky RB. Cerebral Gray Matter **Deficits** After Weight Recovery From Anorexia Volume Nervosa. Arch Psychiatry. 1997;54(6):537–542. doi:10.1001/archpsyc.1997.01830180055006

125. Several landmark studies have replicated the finding that weight restoration does not fully reverse the loss of gray matter volume seen pervasively among those with AN. 110 The image below (Fig. 26) illustrates pervasive loss of gray matter in those with acute AN relative to those without AN (in the top row), and illustrates the persistence of these deficits in weight restored AN relative to those without AN (the middle row). 111

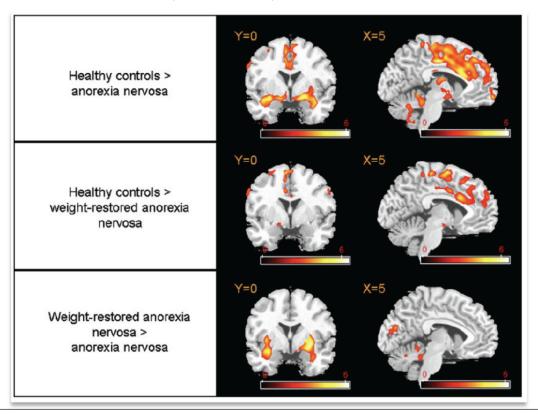


Fig. 26 Gray matter decrease in symptomatic anorexia nervosa subjects, weight-restored anorexia nervosa subjects and controls. Statistical significance (t-score) is depicted according to the color bar gradations.

¹¹⁰ Friederich, H.-C., Walther, S., Bendszus, M., Biller, A., Thomann, P., Zeigermann, S., Katus, T., Brunner, R., Zastrow, A., & Herzog, W. (2012). Grey matter abnormalities within corticolimbic-striatal circuits in acute and weight-restored anorexia nervosa patients. NeuroImage, 59(2), 1106-1113. https://doi.org/10.1016/j.neuroimage.2011.09.042; Kaufmann, LK., Hänggi, J., Jäncke, L. et al. Age influences structural brain restoration during weight gain therapy in anorexia nervosa. Transl Psychiatry 10, 126 (2020). https://doi.org/10.1038/s41398-020-0809-7

¹¹¹ Friederich, H.-C., Walther, S., Bendszus, M., Biller, A., Thomann, P., Zeigermann, S., Katus, T., Brunner, R., Zastrow, A., & Herzog, W. (2012). Grey matter abnormalities within corticolimbic-striatal circuits in acute and weight-restored anorexia nervosa patients. NeuroImage, 59(2), 1106-1113.

- Other studies assessing the longitudinal trajectory of gray matter abnormalities in AN suggest that the restoration of gray matter loss is possible, while the degree to which restoration may occur is not agreed upon, even following "long-term weight restoration". 112
- More recent data suggest that the degree of restoration in cortical thickness may 127. relate to patient age, with the greatest restoration being evident in the youngest patients, while the least restoration being observed in older patients with AN. 113
- However, reduced cortical thickness has been observed in adolescents with AN 128. more than 20 years after their illness onset¹¹⁴ – suggesting a long-term impact on the brain's gray matter architecture, which persists long after weight restoration. Figure 27 below illustrates average differences in cortical thickness between control and eating disorder groups (control > ED) in the post-central cortical region, recovered and control between 17 and 25 years after

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¹¹² King, J. A., Geisler, D., Ritschel, F., Boehm, I., Seidel, M., Roschinski, B., Soltwedel, L., Zwipp, J., Pfuhl, G., Marxen, M., Roessner, V., & Ehrlich, S. (2015). Global cortical thinning in acute anorexia nervosa normalizes following long-term weight restoration. Biological Psychiatry, 77(7), 624–632. https://doi.org/10.1016/j.biopsych.2014.09.005

¹¹³ Kaufmann, LK., Hänggi, J., Jäncke, L. et al. Age influences structural brain restoration during therapy in nervosa. Transl gain anorexia Psychiatry 10, (2020).https://doi.org/10.1038/s41398-020-0809-7

¹¹⁴ Castro-Fornieles, J., de la Serna, E., Calvo, A. et al. Cortical thickness 20 years after diagnosis of anorexia nervosa during adolescence. Eur Arch Psychiatry Clin Neurosci 271, 1133-1139 (2021). https://doi.org/10.1007/s00406-019-00992-4

diagnosis (control > recovered), and control and eating disorder groups (control > ED) in the lateral occipital cortical region in women with a childhood onset of AN.

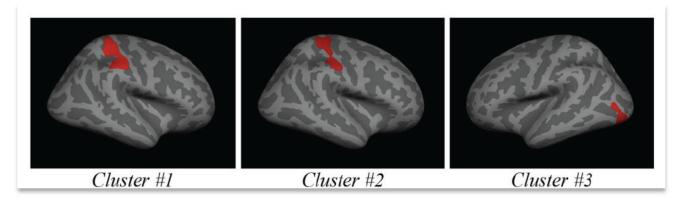


Fig. 27 Cluster 1: Difference in cortical thickness between control and ED group in the post-central cortical region. Cluster 2: Difference in cortical thickness between control and recovered ED group in the post-central cortical region. Cluster 3: Difference in cortical thickness between control and ED group in the lateral occipital cortical region.

129. With regard to bulimia nervosa, several studies have revealed pervasive reductions in gray matter volume in both the cortical surface of the brain 115, and subcortical nuclei. 116 The image below (Fig. 28) illustrates clusters of reduced gray matter volume in young adults with BN.117

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¹¹⁵ Marsh, R., Stefan, M., Bansal, R., Hao, X., Walsh, B. T., & Peterson, B. S. (2015). Anatomical characteristics of the cerebral surface in bulimia nervosa. Biological Psychiatry, 77(7), 616–623. https://doi.org/10.1016/j.biopsych.2013.07.017

¹¹⁶ Schäfer, A., Vaitl, D., & Schienle, A. (2010). Regional grey matter volume abnormalities in binge-eating disorder. NeuroImage, bulimia nervosa and 50(2),639-643. https://doi.org/10.1016/j.neuroimage.2009.12.063

¹¹⁷ Li, X., Liu, X., Wang, Y. et al. Altered regional gray matter volume in Chinese female patients with bulimia nervosa. BMC Psychiatry 20, 94 (2020). https://doi.org/10.1186/s12888-020-02493-

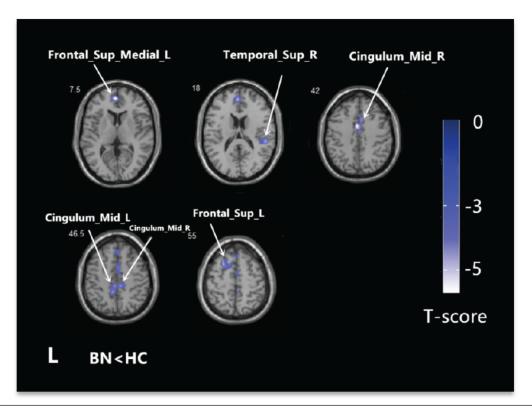


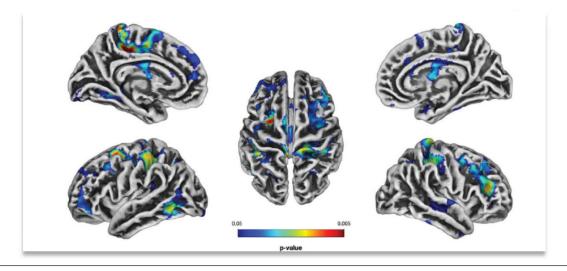
Fig. 28 Young adults show significantly reduced gray matter volume as compared to controls. Purple indicates reduced volume, brain areas are (left to right and top to bottom): left medial superior frontal gyrus, right superior temporal gyrus, right median cingulate and paracingulate gyri, left median cingulate and paracingulate gyri, and left dorsolateral superior frontal gurus.

130. In binge eating disorder (BED), fewer neuroimaging studies have been conducted to date, especially in children. The existing evidence has revealed diffuse alterations in gray matter density in children with BED by as young as 9 years of age. The image in Fig. 29 below illustrates diffuse bilateral clusters of greater gray matter density in children with BED, relative to children without BED, which extends most predominantly to the dorsolateral prefrontal cortex, the anterior cingulate cortex, dorsomedial prefrontal cortex, and the postcentral gyrus. 118 While speculative,

¹¹⁸ Murray, S. B., Duval, C. J., Balkchyan, A. A., Cabeen, R. P., Nagata, J. M., Toga, A. W., Siegel, S. J., & Jann, K. (2022). Regional gray matter abnormalities in pre-adolescent binge eating disorder: A Voxel-based morphometry study. Psychiatry Research, 310, 114473. https://doi.org/10.1016/j.psychres.2022.114473

the increased gray matter density in BED is thought to reflect disturbance in synaptic pruning – an essential part of neurodevelopment.

At this time, no data exist around the extent to which these structural brain perturbations may be reversed upon illness recovery.



Gray matter density was significantly higher in bilateral frontal and temporal areas in preadolescent children with binge eating disorder as compared to the control group using whole brain analysis (voxel-based morphometry).

132. In terms of the brain's white matter – which refers to the fiber tracts connecting gray matter brain structures, evidence has revealed pervasive and persistent alterations in white matter tracts among those with AN. Several systematic reviews and meta-analyses have revealed pervasive reductions in white matter tract integrity in both adolescents and adults with AN, extending to major white matter tracts in the brain including the longitudinal fasciculus, the frontooccipital fasciculus, the internal capsule, the thalamic radiation, the fornix, and the corticospinal tract. 119 Fig. 30 below depicts white fiber tracts that are altered in subjects with AN and BN.

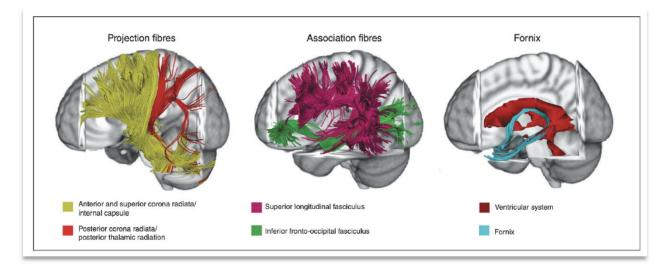


Fig. 30 Representation (tractographic reconstruction) of white matter tracts altered in subjects with anorexia nervosa and bulimia nervosa.

In keeping with findings relating to gray matter, the capacity to recover white matter 133. tract integrity and volume upon stable weight normalization remains unclear. Some evidence points towards the restoration of white matter integrity upon weight restoration¹²⁰, whereas other

¹¹⁹ Martin Monzon B, Hay P, Foroughi N, Touyz S. White matter alterations in anorexia nervosa: A systematic review of diffusion tensor imaging studies. World J Psychiatry. 2016 Mar 22;6(1):177-86. doi: 10.5498/wjp.v6.i1.177.; Barona, M., Brown, M., Clark, C., Frangou, S., White, T., & Micali, N. (2019). White matter alterations in anorexia nervosa: Evidence from a Voxel-based meta-analysis. Neuroscience & Egophiano Biobehavioral Reviews, 100, 285-295. https://doi.org/10.1016/j.neubiorev.2019.03.002; Gaudio, S., Carducci, F., Piervincenzi, C., Olivo, G., & Schiöth, H. B. (2019). Altered thalamo-cortical and occipital-parietal-temporal-frontal white matter connections in patients with anorexia and BULIMIA NERVOSA: A systematic review of Diffusion Tensor Imaging Studies. Journal of Psychiatry and Neuroscience, 44(5), 324-339. https://doi.org/10.1503/jpn.180121

¹²⁰ von Schwanenflug, N., Müller, D. K., King, J. A., Ritschel, F., Bernardoni, F., Mohammadi, S., ... Ehrlich, S. (2019). Dynamic changes in white matter microstructure in anorexia nervosa: longitudinal study. Psychological findings Medicine, 49(9), doi:10.1017/S003329171800212X; Roberto, C. A., Mayer, L. E., Brickman, A. M., Barnes, A., Muraskin, J., Yeung, L., Steffener, J., Sy, M., Hirsch, J., Stern, Y., & Walsh, B. T. (2011). Brain tissue volume changes following weight gain in adults with anorexia nervosa. International Journal of Eating Disorders, 44(5), 406–411. https://doi.org/10.1002/eat.20840

studies have pointed towards white matter volume and integrity deficits which persist after weight restoration in both adults and adolescents with AN. 121

Further still, myelin sheath (Fig. 31)— which lines the brain's white matter fiber 134. tracts – is compromised in young people with AN, even after they have recovered. 122 This reduction in myelin integrity may stem from the pervasive restriction of dietary fats in AN – since myelin is derived from lipids, which in turn is partially derived from dietary fats, which is what is reduced in AN. The finding that these abnormalities in myelin are evident in the recovered state suggests that these abnormalities may not be reversible, and may position AN alongside other demyelination disorders, such as multiple sclerosis.

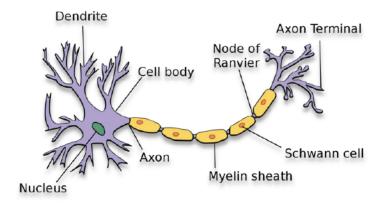


Fig. 31 Diagram of myelin sheath surrounding a neuronal axon. The myelin allows electrical impulses jump from node to node, resulting in fast and efficient transmission.

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¹²¹ Asami, T., Takaishi, M., Nakamura, R. et al. Structural brain abnormalities in adolescent patients with anorexia nervosa at both the acute and weight-recovered phase. Brain Imaging and Behavior 16, 1372–1380 (2022). https://doi.org/10.1007/s11682-021-00622-5; Nickel, K., Tebartz van Elst, L., Holovics, L., Feige, B., Glauche, V., Fortenbacher, T., Endres, D., Zeeck, A., Tüscher, O., Joos, A., & Maier, S. (2019). White matter abnormalities in the corpus callosum in acute and recovered anorexia nervosa patients—a diffusion tensor imaging study. Frontiers in Psychiatry, 10. https://doi.org/10.3389/fpsvt.2019.00490

¹²² Murray, S. B., Cabeen, R. P., Jann, K., Tadayonnejad, R., Strober, M., & Feusner, J. D. (2022). White matter microstructure in habit and reward circuits in anorexia nervosa: Insights from a neurite orientation dispersion and density imaging study. Acta Psychiatrica Scandinavica, 147(2), 134–144. https://doi.org/10.1111/acps.13521

X. **Body Image Plays a Large Role in Eating Disorders**

- The etiology of eating disorders is best conceptualized and understood as a A. multifactorial, biopsychosocial risk model, but the most modifiable risk factor is body image.
- 135. A singular etiological cause of eating disorders has not been identified. Factors contributing to the risk of developing an eating disorder include genetics¹²³, gut microbiota and autoimmune functioning¹²⁴, childhood and early adolescent experiences¹²⁵, personality traits and comorbid psychiatric conditions¹²⁶, socio-economic, gender and ethnicity status¹²⁷, and body

¹²³ Watson, H.J., Yilmaz, Z., Thornton, L.M. et al. Genome-wide association study identifies eight risk loci and implicates metabo-psychiatric origins for anorexia nervosa. Nat Genet 51, 1207–1214 (2019). https://doi.org/10.1038/s41588-019-0439-2; Donato K, Ceccarini MR, Dhuli K, Bonetti G, Medori MC, Marceddu G, Precone V, Xhufi S, Bushati M, Bozo D, Beccari T, Bertelli M. Gene variants in eating disorders. Focus on anorexia nervosa, bulimia nervosa, and binge-eating disorder. J Prev Med Hyg. 2022 Oct 17;63(2 Suppl 3):E297-E305. doi: 10.15167/2421-4248/jpmh2022.63.2S3.2772.

¹²⁴ Fetissov SO, Hökfelt T. On the origin of eating disorders: altered signaling between gut microbiota, adaptive immunity and the brain melanocortin system regulating feeding behavior. Curr Opin Pharmacol. 2019;48:82–91; Glenny EM, Bulik-Sullivan EC, Tang Q, Bulik CM, Carroll IM. Eating disorders and the intestinal microbiota: mechanisms of energy homeostasis and behavioral influence. Curr Psychiatry Rep. 2017;19(8):51; Carbone EA, D'Amato P, Vicchio G, De Fazio P, Segura-Garcia C. A systematic review on the role of microbiota in the pathogenesis and treatment of eating disorders. Eur Psychiatry. 2020;64(1): e2.

¹²⁵ Berkowitz SA, Witt AA, Gillberg C, Råstam M, Wentz E, Lowe MR. Childhood body mass index in adolescent-onset anorexia nervosa. Int J Eat Disord. 2016;49(11):1002-9; Espinoza P, Penelo E, Raich RM. Disordered eating behaviors and body image in a longitudinal pilot study of adolescent girls: what happens 2 years later? Body Image. 2010;7(1):70-3; Caslini M, Bartoli F, Crocamo C, Dakanalis A, Clerici M, Carrà G. Disentangling the association between child abuse and eating disorders: a systematic review and meta-analysis. Psychosom Med. 2016;78(1):79–90; Latzer Y, Rozenstain-Hason M, Kabakov O, Givon M, Mizrachi S, Alon S, et al. Childhood maltreatment in patients with binge eating disorder with and without night eating syndrome vs. control. Psychiatry Res. 2020;293:113451.

¹²⁶ Farstad SM, McGeown LM, von Ranson KM. Eating disorders and personality, 2004–2016: a systematic review and meta-analysis. Clin Psychol Rev. 2016;1(46):91–105.

¹²⁷ Mulders-Jones B, Mitchison D, Girosi F, Hay P. Socioeconomic correlates of eating disorder symptoms in an Australian population-based sample. PLoS ONE. 2017;12(1):e0170603; Barry MR, Sonneville KR, Leung CW. Students with food insecurity are more likely to screen positive for an eating disorder at a large, public university in the Midwest. J Acad Nutr Diet. 2021;121(6):1115-24; Cheng ZH, Perko VL, Fuller-Marashi L, Gau JM, Stice E. Ethnic diferences

image and social influences. 128 Social media, which interplays and amplifies many of these body image and social influence factors, also causes or contributes to the risk of developing eating disorders.

- Anorexia nervosa shows some evidence of being a heritable phenotype, with a 136. genetic underpinning. A recent genome-wide association study located 8 loci near 9 genes which may be implicated in the genetic risk architecture of anorexia nervosa. 129
- The most modifiable factor underpinning the development and maintenance of 137. eating disorders is body image and social influences, including those originating from social media.
- Negative feelings about one's body are among the most robust and well-replicated risk factors for the development of eating disorders. 130

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in eating disorder prevalence, risk factors, and predictive efects of risk factors among young women. Eat Behav. 2019;1(32):23-30; Gorrell S, Grange DL, Blalock DV, Mehler PS, Johnson C, Manwaring J, et al. Gender identity, race/ethnicity and eating pathology in a treatment-seeking community sample. J Behav Cogn Ther. 2021;31(1):77-89

¹²⁸ Stice E, Van Ryzin MJ. A prospective test of the temporal sequencing of risk factor emergence in the dual pathway model of eating disorders. J Abnorm Psychol. 2019;128(2):119–28; Prnjak K, Hay P, Mond J, Bussey K, Trompeter N, Lonergan A, et al. The distinct role of body image aspects in predicting eating disorder onset in adolescents after one year. J Abnorm Psychol. 2021;130(3):236-47.

¹²⁹ Watson, H.J., Yilmaz, Z., Thornton, L.M. et al. Genome-wide association study identifies eight risk loci and implicates metabo-psychiatric origins for anorexia nervosa. Nat Genet 51, 1207–1214 (2019). https://doi.org/10.1038/s41588-019-0439-2

¹³⁰ Stice E, Ng J, Shaw H (2010) Risk factors and prodromal eating pathology. J Child Psychol Psychiatry 51:518–525; Jacobi C, Fittig E (2010) Psychosocial risk factors for eating disorders. In: Agras WS (ed) The Oxford handbook of eating disorders, 1st edn. Oxford University Press, New York, pp 123–136; Stice E (2002) Risk and maintenance factors for eating pathology: a metaanalytic review. Psychol Bull 128:825-848; Stice E, Marti CN, Durant S (2011) Risk factors for onset of eating disorders: evidence of multiple risk pathways from an 8-year prospective study. Behav Res Ther 49:622-627; Neumark-Sztainer D, Wall M, Larson NI, Eisenberg ME, Loth K (2011) Dieting and disordered eating behaviors from adolescence to young adulthood: findings from a 10-year longitudinal study. J Am Diet Associ 111:1004-1011

B. The overvaluation of idealized body shape is a critically important maintaining factor in eating disorder psychopathology

- 139. A central diagnostic criterion for both anorexia nervosa and bulimia nervosa is "the undue influence of body weight or shape upon self-evaluation". ¹³¹
- 140. The most widely cited model of transdiagnostic eating disorder psychopathology posits that the overvaluation of an idealized shape is a core maintaining factor in the psychopathology of eating disorders (see Fig. 32). This paper has been cited more than 4,700 times.

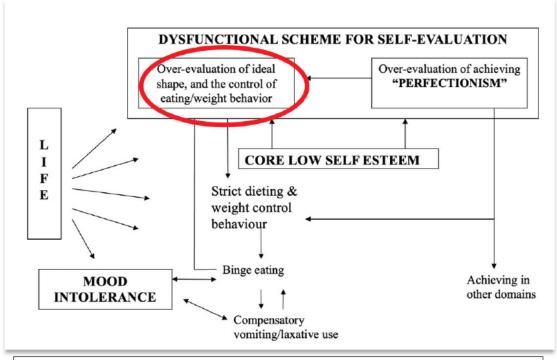


Fig. 32 The model of maintaining factors for transdiagnostic eating disorder psychopathology.

¹³¹ American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author.

¹³² Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: A "Transdiagnostic" theory and treatment. Behaviour Research and Therapy, 41(5), 509–528. https://doi.org/10.1016/s0005-7967(02)00088-8

141. In understanding the origin of an overvaluation of an ideal shape, the sociocultural theory of body image posits that media influence is a significant factor in shaping body satisfaction, and the internalization and subsequent overvaluation of specific body ideals.¹³³

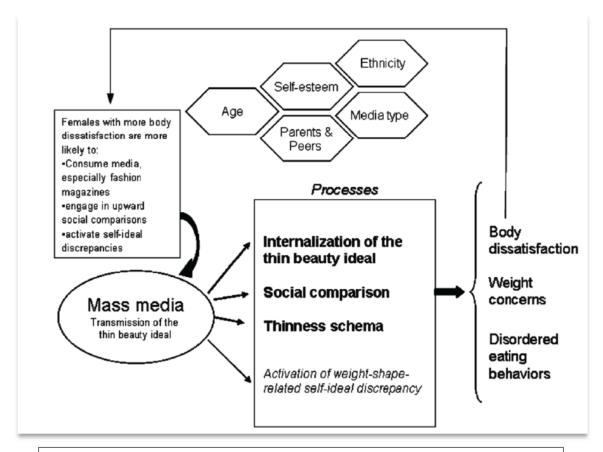


Fig. 33 A theoretical model illustrating how media exposure can lead to the internalization of unrealistic beauty standards, increase social comparisons – and drive body dissatisfaction and eating disorder psychopathology.

142. In particular, three constructs are important in the development of body image dissatisfaction – awareness of a thin or muscular ideal, the internalization of this ideal, and

¹³³ López-Guimerà, G., Levine, M. P., Sánchez-carracedo, D., & Fauquet, J. (2010). Influence of Mass Media on Body Image and Eating Disordered Attitudes and Behaviors in Females: A Review of Effects and Processes. Media Psychology, 13(4), 387–416. https://doi.org/10.1080/15213269.2010.525737

perceived pressure to attain this idea (Fig. 33). 134 Meta-analyses indicate that all three factors are significantly related to body image dissatisfaction, but internalization and perceived pressure to attain a specific body type are especially significant in cultivating body dissatisfaction. 135

Indeed, internalization of media-driven body standards reliably predicts subsequent 143. scrutiny and self-directed criticism of one's body from an external observer's standpoint (i.e., selfobjectification), which in turn reliably predicts negative emotional experiences related to one's body. Together, these negative emotional experiences reliably predict subsequent eating disorder symptomatology including dietary restraint and binge eating. 136

C. Body dissatisfaction is a well-established risk factor in the development and maintenance of eating disorders

- 144. Body dissatisfaction refers to the subjective negative evaluation of one's physical shape, bodyweight and body composition.
- 145. In an expansive synthesis of research findings, including both longitudinal and experimental studies, it was established that there is strong "prospective and experimental support for the suggestion that body dissatisfaction increases the risk for subsequent eating pathology."
- Body dissatisfaction is thought to increase the risk for eating psychopathology through two central mechanisms: (i) dieting and (ii) negative affect. Body dissatisfaction leads to

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¹³⁴ Cafri, G., Yamamiya, Y., Brannick, M., & Thompson, J. K. (2005). The influence of sociocultural factors on body image: A meta-analysis. Clinical Psychology: Science and Practice, 12(4), 421–433. https://doi.org/10.1093/clipsy.bpi053

¹³⁵ Cafri, G., Yamamiya, Y., Brannick, M., & Thompson, J. K. (2005). The influence of sociocultural factors on body image: A meta-analysis. Clinical Psychology: Science and Practice, 12(4), 421–433. https://doi.org/10.1093/clipsy.bpi053

¹³⁶ Dakanalis, A., Carrà, G., Calogero, R. et al. The developmental effects of media-ideal internalization and self-objectification processes on adolescents' negative body-feelings, dietary and binge eating. Eur Child Adolesc Psychiatry 24, 997-1010 (2015).https://doi.org/10.1007/s00787-014-0649-1

dieting, because this is thought to be an effective means to modify one's body. Moreover, body dissatisfaction is thought to drive negate affect, since appearance is a central evaluation dimension for many adolescents and young adults in the United States. Collectively, dieting and negative affect portend substantial risk for the development of disordered eating pathology.

- 147. Empirical evidence supports the notion that body dissatisfaction prospectively predicts increases in dieting in adolescents and young adults.
- 148. Empirical evidence has also documented that body dissatisfaction predicts the onset of clinical eating disorder symptomatology in adolescents and young adults.
- 149. Robust empirical evidence has illustrated that body dissatisfaction prospectively predicts increases in clinical eating disorder symptomatology in adolescents and young adults.
- 150. Empirical evidence has also documented that body dissatisfaction predicts the maintenance of clinical eating disorder symptomatology.
- 151. In a large-scale meta-analysis of prospective and experimental studies, body dissatisfaction was established as "one of the most consistent and robust risk and maintenance factors for eating pathology."

XI. Social Media Plays a Substantial Role in Modifying Body Image and Driving Eating **Disorders**

- A. The link between social media use and body image dissatisfaction and eating disorder psychopathology is well established
- 152. Instagram use has been found to negatively affect users' satisfaction with their own body image, while heightening the users' focus on appearance and increasing comparison with others. 137 Increased monitoring of likes was associated with validation of attractiveness and

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¹³⁷ Baker, N., Ferszt, G., & Breines, J. G. (2019). A qualitative study exploring female college students' Instagram use and body image. Cyberpsychology, Behavior, and Social Networking, 22(4), 277–282. https://doi.org/10.1089/cyber.2018.0420

popularity by others. Qualitative analyses reveal that adolescents and young adults using Instagram report three consistent themes relating body image: responding to beauty ideals, comparing self with others, and display of self. 138

- Being exposed to body checking videos on TikTok causes increased body 153. dissatisfaction and increased negative feelings. 139
- A study of American high school students found that those who reported using 154. social media more than 2 hours daily were 1.6 times more likely to experience body image issues than those who spent less time on social media. 140
- 155. Moreover, a dose response is evident – in that adolescents with more social media accounts, and adolescents who spend more time spend on social media, are more likely to endorse disordered eating cognitions and engage in disordered eating. 141

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¹³⁸ Baker, N., Ferszt, G., & Breines, J. G. (2019). A qualitative study exploring female college students' Instagram use and body image. Cyberpsychology, Behavior, and Social Networking, 22(4), 277–282. https://doi.org/10.1089/cyber.2018.0420

¹³⁹ Westenberg JM., Oberle CD. The impact of body-positivity and body-checking TikTok videos on body image. Journal of Social Media in Society. Vol. 12 No. 1 (2023). https://thejsms.org/index.php/JSMS/article/view/1153

¹⁴⁰ Sagrera, C. E., Magner, J., Temple, J., Lawrence, R., Magner, T. J., Avila-Quintero, V. J., McPherson, P., Alderman, L. L., Bhuiyan, M. A., Patterson, J. C., & Murnane, K. S. (2022). Social media use and body image issues among adolescents in a vulnerable Louisiana Community. Frontiers in Psychiatry, 13. https://doi.org/10.3389/fpsyt.2022.1001336

¹⁴¹ Dahlgren CL, Sundgot-Borgen C, Kvalem IL, Wennersberg AL, Wisting L. Further evidence of the association between social media use, eating disorder pathology and appearance ideals and pressure: a cross-sectional study in Norwegian adolescents. J Eat Disord. 2024;12(1):34; Wilksch SM, O'Shea A, Ho P, Byrne S, Wade TD. The relationship between social media use and disordered eating in young adolescents. Int J Eating Disord. 2020;53(1):96–106.

- Meta-analyses have also illustrated how social media platforms are frequently characterized by weight-related teasing. 142 Relating to this, adolescents who experience weightrelated teasing and bullying are objectively more likely to experience negative body image and engage in disordered eating behaviors. 143 This is supported by qualitative data among adolescent girls, noting self-reported decreases in self-esteem following exposure to weight-related comments on social media platforms. 144
- Social media use may also portend increased social comparisons. This may be especially potent for social media platforms, relative to other media platforms, as social media often professes to convey 'reality', despite the images online being unrealistic, filtered, and photoshop enhanced. 145 To that end, social media influencers typically post their most flattering images, which are meticulously taken with respect to angles and lighting, and are then edited with photo editing software to manipulate their size, facial features and physical attributes. 146
- Repeated exposure to these digitally enhanced and unrealistic images results in 158. adolescents unfavorably comparing themselves to the images and bodies they are exposed to (Fig.

¹⁴² Polanin JR, Espelage DL, Grotpeter JK, et al. A systematic review and meta-analysis of interventions to decrease cyberbullying perpetration and victimization. Prev Sci. 2022;23(3):439– 454.

¹⁴³ Day S, Bussey K, Trompeter N, Mitchison D. The impact of teasing and bullying victimization on disordered eating and body image disturbance among adolescents: a systematic review. Trauma Violence Abuse. 2022;23(3):985-1006.

¹⁴⁴ Berne S, Frisén A, Kling J. Appearance-related cyberbullying: a qualitative investigation of characteristics, content, reasons, and effects. Body Image. 2014;11(4):527–533.

¹⁴⁵ Tiggemann M. Digital modification and body image on social media: disclaimer labels, captions, hashtags, and comments. Body Image. 2022;41:172–180.

¹⁴⁶ Tiggemann M. Digital modification and body image on social media: disclaimer labels, captions, hashtags, and comments. Body Image. 2022;41:172–180.

34),¹⁴⁷ which results in an immediate reduction in body esteem and in general mood,¹⁴⁸ and the development of disordered eating. 149 Importantly, the design features of social media apps disproportionately expose those with eating disorders to harmful eating disorder content, ¹⁵⁰ which in turn reinforces and promotes the exposure of those with eating disorders to more appearance and eating disorder-related content. This turns what is displayed as a linear progression in Figure 34 into a harmful and recursive cycle.

Empirical analyses of university students in the United States illustrated that 159. engagement with appearance and eating-related content on TikTok is associated with higher eating disorder symptoms. 151 Mechanistically, serial mediation analyses noted that higher proportions of recommended appearance and eating-related content on TikTok is in turn associated with social media appearance comparisons, which in turn is associated with eating disorder symptoms. Moreover, this study noted no association between screentime in general, nor a general tendency

¹⁴⁷ Krayer A, Ingledew DK, Iphofen R. Social comparison and body image in adolescence: a grounded theory approach. Health Educ Res. 2008;23 (5):892–903.

¹⁴⁸ Krayer A, Ingledew DK, Iphofen R. Social comparison and body image in adolescence: a grounded theory approach. Health Educ Res. 2008;23 (5):892–903.

¹⁴⁹ Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015). Social comparisons on social media: The impact of facebook on young women's body image concerns and mood. Body Image, 13, 38–45. https://doi.org/10.1016/j.bodyim.2014.12.002; Scully, M., Swords, L., & Nixon, E. (2023). Social comparisons on social media: online appearance-related activity and body dissatisfaction in adolescent girls. Irish Journal of Psychological Medicine, 40(1), 31-42. doi:10.1017/ipm.2020.93

¹⁵⁰ Griffiths, S., Harris, E. A., Whitehead, G., Angelopoulos, F., Stone, B., Grey, W., & Dennis, S. (2024). Does Tiktok contribute to eating disorders? A comparison of the TikTok algorithms belonging to individuals with eating disorders versus healthy controls. Body Image, 51, 101807. https://doi.org/10.1016/j.bodyim.2024.101807

¹⁵¹ Dondzilo, L., Rodgers, R. F., & Dietel, F. A. (2023). Association between engagement with appearance and eating related tiktok content and eating disorder symptoms via recommended content and appearance comparisons. International Journal of Eating Disorders, 57(2), 458-462. https://doi.org/10.1002/eat.24117

to engage with content, and eating disorder symptoms. These data, and the figure below, underscore how algorithmically targeted exposure to specific content on TikTok portends the development and maintenance of eating disorder symptoms. 152

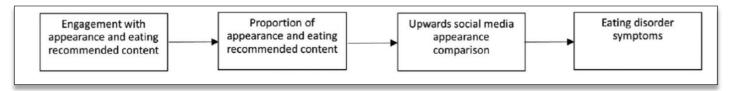


Fig. 34 An illustration of the mediation model noting how targeted exposure to appearance and eating-related content gives rise to eating disorder symptoms.

- 160. Body dissatisfaction is directly related to time spent engaging in social comparisons on social media, even after statistically controlling for age and baseline self-esteem.¹⁵³
- 161. In comparing the impact of appearance comparisons made through traditional media, social media, and in-person figures in everyday life, while it has been noted that in-person comparisons are the most common, comparisons made via social media platforms result in the most negative impact on body image, and upon mood, independently.¹⁵⁴
- 162. Photo-based social media platforms, such as Instagram and TikTok, appear to impart a more negative impact on body esteem than text-based social media content. 155

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¹⁵² Dondzilo, L., Rodgers, R. F., & Dietel, F. A. (2023). Association between engagement with appearance and eating related tiktok content and eating disorder symptoms via recommended content and appearance comparisons. International Journal of Eating Disorders, 57(2), 458–462. https://doi.org/10.1002/eat.24117

¹⁵³ Scully, M., Swords, L., & Nixon, E. (2023). Social comparisons on social media: online appearance-related activity and body dissatisfaction in adolescent girls. Irish Journal of Psychological Medicine, 40(1), 31–42. doi:10.1017/ipm.2020.93

¹⁵⁴ Fardouly, J., Pinkus, R. T., & Vartanian, L. R. (2017). The impact of appearance comparisons made through social media, traditional media, and in person in women's Everyday lives. Body Image, 20, 31–39. https://doi.org/10.1016/j.bodyim.2016.11.002

¹⁵⁵ Vandenbosch L, Fardouly J, Tiggemann M. Social media and body image: recent trends and future directions. Curr Opin Psychol. 2022;45:101289.

- Moreover, exposure to retouched images on photo-based social media platforms carries a substantially more detrimental impact upon body dissatisfaction than unretouched images. 156
- A meta-analysis including 83 studies and over 55,000 research subjects noted a 164. significant impact of online social media comparison and (i) body image concerns, (ii) eating disorder symptoms and (iii) poorer body satisfaction. 157
- Research conducted by Meta that was leaked to the Wall Street Journal was entirely 165. consistent with this peer-reviewed literature, and noted an association between social media use and body dissatisfaction in adolescent girls. ¹⁵⁸ Specifically, 32% of adolescent girls reported that using Instagram made them feel worse about their body, especially if they already experienced some baseline body dissatisfaction. While Meta disputes these research findings, I would note that they are consistent with the wider body of academic literature linking social media use and body dissatisfaction.

Social media platforms disproportionately expose eating disorder patients to В. harmful eating disorder content

166. In a landmark peer-reviewed manuscript titled 'Does TikTok Contribute to Eating Disorders? A Comparison of the TikTok Algorithms Belonging to Individuals with Eating

¹⁵⁶ Kleemans M, Daalmans S, Carbaat I, Anschütz D. Picture perfect: the direct effect of manipulated Instagram photos on body image in adolescent girls. Media Psychol. 2018;21(1):93-110.

¹⁵⁷ Bonfanti, R. C., Melchiori, F., Teti, A., Albano, G., Raffard, S., Rodgers, R., & Lo Coco, G. (2025). The association between social comparison in social media, body image concerns and eating disorder symptoms: A systematic review and meta-analysis. Body Image, 52, 101841. https://doi.org/10.1016/j.bodyim.2024.101841

¹⁵⁸ Wells G, Horwitz J, Seetharaman D Facebook knows Instagram is toxic for teen girls, company documents show. Wall Street Journal; Available from: https://www.wsj.com/articles/facebookknows-instagram-is-toxic-for-teen-girls-company-documents-show-11631620739. Accessed March 13, 2024

Disorders and Health Controls', a team of scientists assessed over 1.03 million TikTok videos delivered to individuals with eating disorders, and those without, respectively. Those with eating disorders were delivered 4,343% more toxic eating disorder videos, 335% more dieting videos, 146% more appearance-related videos, and 142% more exercise videos. Importantly, a significant relationship was evident between algorithm bias towards appearance, exercise, dieting and toxic eating disorder videos – and eating disorder symptom severity, in that a stronger TikTok algorithm bias towards these videos was associated with more severe eating disorders. 159 The image below

¹⁵⁹ Griffiths, S., Harris, E. A., Whitehead, G., Angelopoulos, F., Stone, B., Grey, W., & Dennis, S. (2024). Does Tiktok contribute to eating disorders? A comparison of the TikTok algorithms belonging to individuals with eating disorders versus healthy controls. Body Image, 51, 101807. https://doi.org/10.1016/j.bodyim.2024.101807

(Fig. 35) illustrates the discrepancies in problematic video exposure to those with and without eating disorders, respectively.

An important question relates to whether the significantly elevated prevalence of 167. appearance, exercise, dieting and toxic eating disorder videos is driven by users 'liking' such

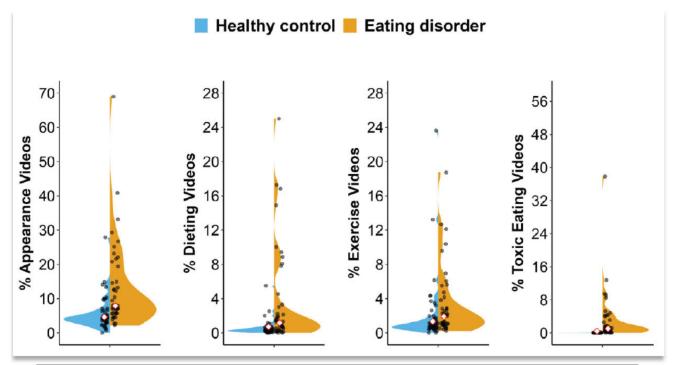


Fig. 35 TikTok users with eating disorders (orange) receive significantly more videos related to appearance, dieting, exercise and toxic eating than TikTok users that are healthy (blue). White diamonds outlined in red represent the median for each group.

videos, or whether these videos appear independently of liking data. To this end, while those with eating disorders are slightly more likely to 'like' these problematic videos (for instance, those with eating disorders are 23% more likely to 'like' dieting videos than those without eating disorders), the algorithms of those with eating disorders are far more likely to deliver these problematic videos in the first place (for instance, dieting videos are 335% more likely to appear in the feed of those with eating disorders).

168. In response to the plethora of potentially toxic eating disorder-related content on social media platforms, a body of eating disorder recovery-oriented content has emerged.

- In 2022, in a separate study assessing a sample of 200 TikTok videos linked to eating disorder-related hashtags, up to 30% of TikTok video content was deemed to be pro-eating disorder-related content, which "encouraged the development or sustaining of eating disorders", whereas 60% was deemed recovery-oriented. 160
- In 2024, my former PhD student published an article in Body Image, assessing over 170. 1 million videos on TikTok, titled "Does TikTok Contribute to Eating Disorders? A Comparison of the TikTok Algorithms Belonging to Individuals with Eating Disorders Versus Healthy Controls". This study – which remains the largest study of TikTok algorithmic programming for those with eating disorders to date - illustrated that those with eating disorders are 4,343% more likely to be sent toxic eating disorder videos in their algorithm-driven feeds. Those with eating disorders were also 146% more likely to be sent physical appearance videos, 335% more likely to be sent dieting videos, and 142% more likely to be sent exercise videos. 161
- Moreover, the pro-eating disorder content was markedly less accurate than 171. recovery-related content, containing potentially harmful misinformation. 162
- 172. User engagement, such as the number of user-driven likes a video receives, does not differ as a function of the accuracy of the information contained in videos – suggesting that the

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¹⁶⁰ Lookingbill V, Mohammadi E, Cai Y. Assessment of Accuracy, User Engagement, and Themes of Eating Disorder Content in Social Media Short Videos. JAMA Netw Open. 2023;6(4):e238897. doi:10.1001/jamanetworkopen.2023.8897

¹⁶¹ Griffiths, S., Harris, E. A., Whitehead, G., Angelopoulos, F., Stone, B., Grey, W., & Dennis, S. (2024). Does Tiktok contribute to eating disorders? A comparison of the TikTok algorithms belonging to individuals with eating disorders versus healthy controls. Body Image, 51, 101807. https://doi.org/10.1016/j.bodyim.2024.101807

¹⁶² Lookingbill V, Mohammadi E, Cai Y. Assessment of Accuracy, User Engagement, and Themes of Eating Disorder Content in Social Media Short Videos. JAMA Netw Open. 2023;6(4):e238897. doi:10.1001/jamanetworkopen.2023.8897

accuracy of the video, or the orientation towards either illness maintenance or recovery – doesn't mediate how popular the video is.¹⁶³

- C. The promotion of eating disorder content and the recurrent exposure on social media platforms confers significant risk for the development of eating disorder psychopathology
- 173. Pro-eating disorder content on social media - which may include tips for weight loss, and sharing content glorifying eating-disordered behaviors or tips to evade the detection of eating disorder behaviors – has been widely documented on prominent and easily accessible social media platforms such as Twitter, Instagram, and YouTube. 164
- Pro-eating disorder content is associated with worsening body image and eating disorder symptoms severity. Empirical evidence illustrates that engagement with pro-eating disorder content is associated with an elevated drive for thinness and greater body dissatisfaction. 165
- 175. Thinspiration content - which refers to content that glamorizes and promotes the thin body ideal, and shares tips and suggests towards the pursuit of thinness – is increasingly evident on social media platforms. In a large study of over four hundred adolescents and young

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¹⁶³ Lookingbill V, Mohammadi E, Cai Y. Assessment of Accuracy, User Engagement, and Themes of Eating Disorder Content in Social Media Short Videos. JAMA Netw Open. 2023;6(4):e238897. doi:10.1001/jamanetworkopen.2023.8897

¹⁶⁴ Ghaznavi J, Taylor LD (2015) Bones, body parts, and sex appeal: an analysis of # thinspiration images on popular social media. Body Image 14:54–61; Juarascio AS, Shoaib A, Timko CA (2010) Pro-eating disorder communities on social networking sites: a content analysis. Eat Disord 18:393– 407; Syed-Abdul S, Fernandez-Luque L, Jian WS, Li YC, Crain S, Hsu MH et al (2013) Misleading health-related information promoted through video-based social media: anorexia on YouTube. JMIR 15:e30.

¹⁶⁵ Moorman EL, Warnick JL, Acharya R, Janicke DM. The use of internet sources for nutritional information is linked to weight perception and disordered eating in young adolescents. Appetite. 2020;154:104782; Custers K. The urgent matter of online pro-eating disorder content and children: clinical practice. Eur J Pediatr. 2015;174(4):429-433.

adults in the United States, 96% of people reported being exposed to messaging that being thin is important or attractive, in the last month, while 83% of participants reporting exposure to this content more than 10 times in the last month. The most common platforms for exposure to the thin ideal being portrayed positively are illustrated in Figure 35 below, alongside the frequency of participants following accounts which post related content, and the frequency of participants themselves posting such content. The support of participants are posting such content.

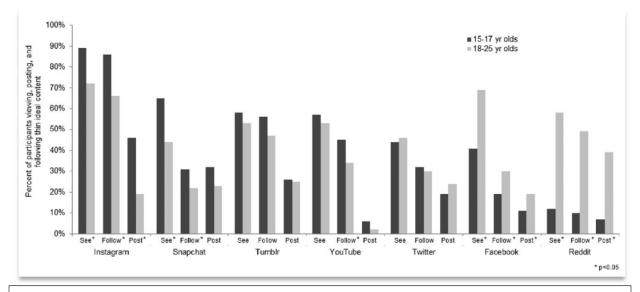


Fig. 36 Common platforms on which users are exposed to "thin ideal" content, and the percent of users viewing, posting and following the content.

176. Empirically derived content analyses of "thinspiration" content on social media platforms reveal that approximately 70% of thinspiration show body parts, often highlighting bony

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¹⁶⁶ Fitzsimmons-Craft, E.E., Krauss, M.J., Costello, S.J. et al. Adolescents and young adults engaged with pro-eating disorder social media: eating disorder and comorbid psychopathology, health care utilization, treatment barriers, and opinions on harnessing technology for treatment. Eat Weight Disord 25, 1681–1692 (2020). https://doi.org/10.1007/s40519-019-00808-3

¹⁶⁷ Fitzsimmons-Craft, E.E., Krauss, M.J., Costello, S.J. et al. Adolescents and young adults engaged with pro-eating disorder social media: eating disorder and comorbid psychopathology, health care utilization, treatment barriers, and opinions on harnessing technology for treatment. Eat Weight Disord 25, 1681–1692 (2020). https://doi.org/10.1007/s40519-019-00808-3

protrusions and positively connotes mental illness.¹⁶⁸ Among those with eating disorder, greater use of image-centric social media platforms results in greater exposure to thinspiration content, which in turn is related to greater physical appearance comparison – which in turn is directly relate to greater severity of eating disorder symptomatology. 169

Similarly, "fitspiration" content – which purportedly relates to fitness and healthy 177. living – also has a negative impact on adolescent body image and are associated with eating disorder behaviors and increased body comparisons.¹⁷⁰ Almost a fifth of those posting "fitspiration" images demonstrate clinically meaningful disordered eating symptomatology, and such posts may serve to disseminate disordered eating practices, body objectification and compulsive exercise. 171

D. Professional eating disorder associations are globally aligned in the notion that social media use can cause harm in young people with eating disorders.

In 2021, the Academy of Eating Disorders released a position paper to the field 178. entitled 'Urgent Responsibility to Reduce Harms Posed by Social Media on Risk for Eating Disorders: An open Letter to Facebook, Instagram, TikTok, and Other Global Social Media

¹⁶⁸ Alberga, A.S., Withnell, S.J. & von Ranson, K.M. Fitspiration and thinspiration: a comparison across three social networking sites. J Eat Disord 6, 39 (2018). https://doi.org/10.1186/s40337-018-0227-x

¹⁶⁹ Griffiths, S., Castle, D., Cunningham, M., Murray, S. B., Bastian, B., & Barlow, F. K. (2018). How does exposure to thinspiration and fitspiration relate to symptom severity among individuals with eating disorders? evaluation of a proposed model. Body Image, 27, 187-195. https://doi.org/10.1016/j.bodyim.2018.10.002

¹⁷⁰ Carrotte ER, Vella AM, Lim MSC. Predictors of "liking" three types of health and fitnessrelated content on social media: a cross-sectional study. J Med Internet Res. 2015;17(8):e205; Jerónimo F, Carraça EV. Effects of fitspiration content on body image: a systematic review. Eat Weight Disord. 2022;27(8):3017-3035.

¹⁷¹ Holland, G., & Tiggemann, M. (2016). "strong beats skinny every time": Disordered eating and compulsive exercise in women who post fitspiration on Instagram. International Journal of Eating Disorders, 50(1), 76–79. https://doi.org/10.1002/eat.22559

Corporations'. 172 In this position paper, the Academy commented on the "devastating effects of social media on users with existing eating disorders", and implored social media corporations to "take swift, decisive, and transparent action to reduce the harms posed by social media on some of the most vulnerable users - those struggling with disordered eating and those who may be at risk."173 In a 6-point plan to reduce the harms of social media, the Academy further argued that the following are considered key starting points:

- 1. Increase transparency around the algorithms that guide users towards specific types of content, and more importantly, display community guidelines for appropriate content in plain language in an easily-accessed location within the platform.
- 2. Build easy-access user paths into social media platforms, through which users may report content that is inconsistent with platform guidelines.
- 3. Direct more resources and funding toward AI-based identification and removal of malicious and eating disorder-promoting accounts and content, as well as those that stigmatize individuals living in larger bodies.
- 4. Cease the development of an Instagram for users 13-years-old and younger.
- 5. Solicit guidance from expert organizations like the AED to ensure these safeguards are well-suited to tackle the problem in a way that is well-aligned with the needs of the target at risk.
- 6. Pre-register future studies on the impacts of social media usage on eating disorders, and disseminate the results to the public in a timely manner.

In 2022, the Editor-in-Chief of the journal Body Image wrote an Editorial called 179. "The Dangers of the Rabbit Hole: Reflections on Social Media as a portal into a Distorted World of Edited Bodies and Eating Disorder Risk and the Role of Algorithms", which posited that "social media platforms rabbit hole users into emotionally extreme content and edited bodies that may prompt mental health risks such as appearance-related concerns, eating disorders and body

¹⁷² (AED), A. for E. D. (2021, November 2). Urgent responsibility to reduce harms posed by social media on risk for eating disorders: An open letter to Facebook, Instagram, TikTok, and other global social media corporations. Newswise. https://www.newswise.com/articles/urgent-responsibilityto-reduce-harms-posed-by-social-media-on-risk-for-eating-disorders

¹⁷³ (AED), A. for E. D. (2021, November 2). Urgent responsibility to reduce harms posed by social media on risk for eating disorders: An open letter to Facebook, Instagram, TikTok, and other global social media corporations. Newswise. https://www.newswise.com/articles/urgent-responsibilityto-reduce-harms-posed-by-social-media-on-risk-for-eating-disorders

dysmorphia", further adding that "social media companies are aware of the harm being caused by current content approaches."174

- In specifically highlighting the risk conferred by social media, as opposed to other 180. forms of media, the National Eating Disorders Association note "Social media differs from traditional media (e.g. television, print, movies) as it allows users to post their own content and then receive feedback from others. Furthermore, since social media is constantly available to people on their devices and more than 3.2 billion new images are posted on social networking sites each day there is a much higher risk of being exposed to thin and muscular body ideals than traditional forms of media."175
- The National Eating Disorders Association also notes "studies have found that social media use, particularly engaging with appearance focused content that idealizes thin bodies, taking selfies and viewing and/or comparing oneself to images of celebrities, peers or family increase body dissatisfaction and can lead to disordered eating among both females and males, though rates are consistently higher for females."¹⁷⁶
- 182. In Australia, Australian and New Zealand Academy of Eating Disorders conducted a poll of more than 730 members who are frontline healthcare workers who have expertise in the treatment of eating disorders, around the impact of social media on their patients¹⁷⁷ – with 100%

¹⁷⁴ Harriger JA, Evans JA, Thompson JK, Tylka TL. The dangers of the rabbit hole: Reflections on social media as a portal into a distorted world of edited bodies and eating disorder risk and the role of algorithms. Body Image. 2022 Jun;41:292-297. doi: 10.1016/j.bodyim.2022.03.007

¹⁷⁵ Media and eating disorders. National Eating Disorders Association. (2025, March 21). https://www.nationaleatingdisorders.org/media-and-eating-disorders/

¹⁷⁶ Media and eating disorders. National Eating Disorders Association. (2025, March 21). https://www.nationaleatingdisorders.org/media-and-eating-disorders/

¹⁷⁷ Young Aussie's eating disorders fuelled by social media, poll shows. ANZAED. (n.d.). https://anzaed.org.au/Web/Web/Our-Community/NewsArticles/Young-Aussie-s-eatingdisorders-fuelled-by-social-media--poll-shows.aspx

of respondents identifying detrimental impacts of social media upon their patients, and 99% of respondents imploring social media companies to make changes to address these harms. 178

- The Butterfly Foundation in Australia conveyed a Roundtable Working Group to 183. develop a series of social media-related recommendations. ¹⁷⁹ These recommendations include:
- Social media platforms be required to be transparent about their algorithms with regular publicly available algorithm risk audits from independent bodies and with consequences for non-compliance including appropriate fines or other punitive measures for effective deterrence.
- Social media platforms be required to explicitly give users the opportunity to reset their generated algorithms easily and on demand.
- Social media platforms be required to prioritize the presentation of diverse physical appearances (e.g., diverse body sizes, shapes, genders, colors, abilities) within their algorithms.
- Social media platforms be required to create a shield function for users to opt-out of specific types of content which may be harmful (see Appendix 2 which lists the types of content which are considered harmful – based on research evidence, lived experience, and clinical expertise).
- Social media platforms be required to have accurate age verification for all accounts and clearly articulate what these are and measure and report on their efficacy.
- Beauty filters (i.e. filters that alter a person's appearance to match beauty ideals) inbuilt into the platforms be removed from children's social media accounts (i.e. those under 18 years old).
- Social media platforms be required to regularly engage in meaningful collaboration with experts (i.e. individuals with a lived experience, researchers, clinicians, eating disorder organizations) to allow ongoing discussions which ensure their practices and systems are expert-informed and mitigate harm.
- Social media platforms be required to examine, via lived experience focus groups or other forums, user awareness and use of safety features to ensure they are known, accessible, and easy to understand/implement and to make these findings publicly available.

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¹⁷⁸ Young Aussie's eating disorders fuelled by social media, poll shows. ANZAED. (n.d.). https://anzaed.org.au/Web/Web/Our-Community/NewsArticles/Young-Aussie-s-eatingdisorders-fuelled-by-social-media--poll-shows.aspx

¹⁷⁹ Social Media, Body Image and Eating Disorders: Recommendations from a roundtable working group convened by Zoe Daniel MP and Butterfly Foundation, September 2023 - May 2024. https://butterfly.org.au/wp-content/uploads/2024/05/Roundtable-Recommendations-FINAL-ONLINE.pdf

The Butterfly Foundation also summarized the possible eating disorder-related 184. harms inherent to social media use, which are illustrated in Figure 36 below:

Appendix 2: What we know can be harmful content on social media

Known harmful content types include:

- ProED (i.e., pro-eating disorder content) anything that glorifies or encourages eating disorders, extreme weight loss behaviours, and/or extremely low BMI, including subcategories such as proana and pro-mia (Feldhege et al., 2021; Mento et al., 2021)
- Extreme diet and weight loss content, for example:
 - Weight gain or weight loss supplement use or extreme diets (< 1,500 cal)
 - Extreme fitness programs/goals
 - Extreme before and after photos, weight loss journeys
 - Some food related trends ('What I eat in a Day', 'Girl Dinner')
 - Body measuring/checking/comparison trends e.g. the Headphones challenge, the A4 paper challenge, the thigh gap challenge
 - Misinformation relating to nutrition, fitness or at the very least claims presented as 'science' that promote disordered eating behaviours
- · Thin or ideal or fit images (i.e., thinspiration, fitspiration defined as content that glorifies extreme thinness or muscularity which may be accompanied by dieting or excessive exercise regimes; Barron et al., 2021; Hendrickse, et al., 2020; Mulgrew et al., 2020; Vandenbosch et al., 2022)
- Investing/engaging in appearance related activities or communication that promotes unattainable and non-inclusive beauty ideals (editing [i.e., face tune, filters], comments, likes) (Dane & Bahita, 2023; de Valle et al., 2021; Vandenbosch et al., 2022)
- Weight stigmatising messaging content that perpetuates fat phobia, weight stigma, and/or size discrimination through language, memes, jokes etc (Clark et al., 2021)
- Objectifying images (e.g. highly sexualised) (de Lenne et al., 2021)
- Appearance-based bullying/teasing

Note. While some platforms have used disclaimer labels and captions (i.e., indicating photoshopping, editing, and/or the unrealistic nature of an image) in an effort to mitigate harm, the research evidence suggests that these are ineffective at protecting women's body image against the negative effects of social media and in some instances leads to poorer outcomes (McComb & Mills, 2020; Tiggemann, 2022).

Fig. 36 A summary of known eating disorder related harms inherent to social media use, shared in the Butterfly Foundation Roundtable Work group.

Several other eating disorder organizations around the globe have offered strong position statements and recommendations for the protection of young people at risk for the development of eating disorders from social media platforms, including Beat Eating Disorders (UK), ¹⁸⁰ the National Eating Disorder Information Centre (Canada), ¹⁸¹ and many more.

In summary, eating disorders are a deeply debilitating and lethal psychiatric illness, 186. which can be difficult to recover from – even with leading treatments. In weighing the totality of the evidence base, it appears evident that social media use is causally connected to the development and exacerbation of eating disorders. In particular, specific design features of social media apps have been centrally implicated in the development and maintenance of self-objectification, body dissatisfaction and heightened social comparison, which in addition to targeted promotion of eating disorder-related content to those with eating disorders, portends a substantially heightened risk of eating disorders.

The Design of Social Media Platforms Motivates a Focus on Appearance and XII. Constant Comparison that Fuels a Cycle of Body Dysmorphic Disorder Symptomology and Increasing Social Media Use

The psychopathology of body dysmorphic disorder has been well Α. documented for over 75 years

Body dysmorphic disorder (BDD) is a serious psychiatric condition that is 187. principally characterized by an intense preoccupation with a perceived flaw or flaws in one's physical appearance, even if these flaws are minor or nonexistent. Cognitive symptoms stemming from this preoccupation in BDD include frequent and severe intrusive negative thoughts relating

Harmful eating disorder content should be removed from social media. Beat. (n.d.). https://www.beateatingdisorders.org.uk/news/beat-news/eating-disorder-content-removed-social/ ¹⁸¹ Gardiner C, Eating Disorders and Social Media. National Eating Disorder Information Centre. Vol. No. October 4. 2020. https://nedic.ca/media/uploaded/29940_NEDIC_Bulletin_Vol._35_No._4_-_October_2020.pdf

to the perceived flaw in appearance, and behavioral symptoms include compulsive compensatory behaviors which include mirror checking, excessive grooming, or reassurance seeking. BDD was first described in the medical literature in 1891, albeit while being referred to as 'dysmorphophobia', but was only added to the Diagnostic and Statistical Manual of Mental Disorders in 1987.

188. Specifically, BDD DSM-5 criteria includes (i) Preoccupation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others, (ii) At some point during the course of the disorder, the individual has performed repetitive behaviors (e.g., mirror checking, excessive grooming, skin picking, reassurance seeking) or mental acts (e.g., comparing his or her appearance with that of others) in response to the appearance concerns, and (iii) The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. 182

В. Body dysmorphic disorder is a dangerous and debilitating psychiatric disorder characterized by elevated suicidality.

189. Empirical evidence indicates that up to 80% of individuals with BDD experience lifetime suicidal ideation and up to 62% have attempted suicide, ¹⁸³ far higher than what is observed among those without BDD.

¹⁸² The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association [APA], 2013)

¹⁸³ Phillips KA. Suicidality in Body Dysmorphic Disorder. Prim psychiatry. 2007 Dec;14(12):58-66; Angelakis, I., Gooding, P. A., & Panagioti, M. (2016). Suicidality in body dysmorphic disorder (BDD): A systematic review with meta-analysis. Clinical Psychology Review, 49, 55-66. https://doi.org/10.1016/j.cpr.2016.08.002

- C. The population prevalence of body dysmorphic disorder has remained steady over the last several decades, but the prevalence among social media users is higher than what is reported in the general population.
- Empirical data from 7 seven major metropolitan communities in Boston in 2001 190. indicated that the point prevalence of BDD was 0.7% among clinical and community dwelling women. 184 By 2017, epidemiological surveillance indicated that the prevalence of BDD in community settings was 1.7%. 185
- Population level data from 2006 reported a prevalence of BDD to be 1.7%. 186 Similarly, population level data from 2010 indicated a BDD prevalence of approximately 1.8%. 187 Population level data from over 7,500 children aged 5-19 years of age in 2017 reported the prevalence of BDD to be 1%.188

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¹⁸⁴ Otto, M. W., Wilhelm, S., Cohen, L. S., & Harlow, B. L. (2001). Prevalence of body dysmorphic disorder in a community sample of women. American Journal of Psychiatry, 158(12), 2061–2063. https://doi.org/10.1176/appi.ajp.158.12.2061

¹⁸⁵ Schneider SC, Turner CM, Mond J, Hudson JL. Prevalence and correlates of body dysmorphic disorder in a community sample of adolescents. Australian & New Zealand Journal of Psychiatry. 2016;51(6):595-603. doi:10.1177/0004867416665483

¹⁸⁶ RIEF, W., BUHLMANN, U., WILHELM, S., BORKENHAGEN, A., & BRÄHLER, E. (2006). The prevalence of body dysmorphic disorder: a population-based survey. Psychological Medicine, 36(6), 877-885. doi:10.1017/S0033291706007264

¹⁸⁷ Buhlmann, U., Glaesmer, H., Mewes, R., Fama, J. M., Wilhelm, S., Brähler, E., & Rief, W. (2010). Updates on the prevalence of body dysmorphic disorder: A population-based survey. Psychiatry Research, 178(1), 171–175. https://doi.org/10.1016/j.psychres.2009.05.002

¹⁸⁸ Krebs, G., Clark, B. R., Ford, T. J., & Stringaris, A. (2025). Epidemiology of body dysmorphic disorder and appearance preoccupation in youth: Prevalence, comorbidity and psychosocial impairment. Journal of the American Academy of Child & Descent Psychiatry, 64(1), 30– 40. https://doi.org/10.1016/j.jaac.2024.01.017

- 192. In contrast to the consistently reported nationally representative prevalence of BDD, empirical data suggest a four-fold higher prevalence of BDD among social media users, which in 2020 was 4.2%. 189
 - D. Psychiatric treatment does not result in recovery for more than half of those with body dysmorphic disorder, and even among those who recover relapse is often observed.
- 193. Treatment studies generally report poor treatment outcomes for BDD, with less than half of those with BDD fully remitting from symptoms by end-of-treatment. A landmark retrospective chart review reported that after 12 months of treatment, only 24.7% had reached recovery, and after 4 years just over 58.2% had fully recovered, as illustrated in Fig. 37. 190

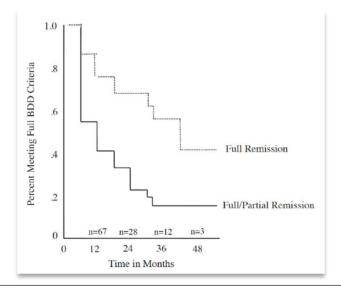


Fig. 37 Percent of individuals with BDD who experience full or partial remission over 48 months.

¹⁸⁹ Alsaidan MS, Altayar NS, Alshmmari SH, Alshammari MM, Alqahtani FT, Mohajer KA. The prevalence and determinants of body dysmorphic disorder among young social media users: A cross-sectional study. Dermatol Reports. 2020 Dec 22;12(3):8774. doi: 10.4081/dr.2020.8774

¹⁹⁰ Phillips, K. A., Grant, J. E., Siniscalchi, J. M., Stout, R., & Price, L. H. (2005). A retrospective follow-up study of body dysmorphic disorder. Comprehensive Psychiatry, 46(5), 315–321. https://doi.org/10.1016/j.comppsych.2004.12.001

- A landmark prospective analysis reported after one year of treatment, only 9% had 194. recovered from BDD. 191 Moreover, this study noted that participants met full criteria for BDD during 80% of the follow-up period, indicating a chronic course for many individuals. 192 In a randomized controlled trial of CBT for adolescents with BDD, 23% demonstrated a full remission.¹⁹³ A 2016 randomized controlled trial of escitalopram for BDD resulted in 20% remission rate. 194
- A more recent study of CBT for adult BDD noted that 68% of adult with BDD 195. responded to treatment, although it is unclear what percentage of participants experienced full remission, versus partial symptom remission. 195
- In assessing the entirety of the evidence base, it is evident that most individuals 196. with BDD do not recover in treatment, even with leading treatment approaches. In terms of relapse among those who either partially or fully respond to treatment, up to 20% relapse back into full

¹⁹¹ Phillips, K. A., Pagano, M. E., Menard, W., & Stout, R. L. (2006). A 12-month follow-up study of the course of body dysmorphic disorder. American Journal of Psychiatry, 163(5), 907–912. https://doi.org/10.1176/ajp.2006.163.5.907

¹⁹² Phillips, K. A., Pagano, M. E., Menard, W., & Stout, R. L. (2006). A 12-month follow-up study of the course of body dysmorphic disorder. American Journal of Psychiatry, 163(5), 907–912. https://doi.org/10.1176/ajp.2006.163.5.907

¹⁹³ Krebs G, Fernández de la Cruz L, Monzani B, Bowyer L, Anson M, Cadman J, Heyman I, Turner C, Veale D, Mataix-Cols D. Long-Term Outcomes of Cognitive-Behavioral Therapy for Adolescent Body Dysmorphic Disorder. Behav Ther. 2017 Jul;48(4):462-473. doi: 10.1016/j.beth.2017.01.001.

¹⁹⁴ Phillips, K. A., Keshaviah, A., Dougherty, D. D., Stout, R. L., Menard, W., & Wilhelm, S. (2016). Pharmacotherapy relapse prevention in body dysmorphic disorder: A double-blind, placebo-controlled trial. American Journal of Psychiatry, 173(9), 887-895. https://doi.org/10.1176/appi.ajp.2016.15091243

¹⁹⁵ Weingarden, H., Hoeppner, S. S., Snorrason, I., Greenberg, J. L., Phillips, K. A., & Wilhelm, S. (2021). Rates of remission, sustained remission, and recurrence in a randomized controlled trial of cognitive behavioral therapy versus supportive psychotherapy for body dysmorphic disorder. Depression and Anxiety, 38(7), 700–707. https://doi.org/10.1002/da.23148

E. Social media use has been reported to result in filter-related cosmetic surgery requests

- 197. In 2018, an editorial in *JAMA Facial Plastic Surgery* noted that "the pervasiveness of these filtered images can take a toll on one's self esteem, make one feel inadequate for not looking a certain way in the real world, and may even act as a trigger and lead to body dysmorphic disorder". ¹⁹⁸
- 198. The same article noted "A new phenomenon, dubbed "Snapchat dysmorphia," has patients seeking out cosmetic surgery to look like filtered versions of themselves, with fuller lips, bigger eyes, or a thinner nose. This is an alarming trend because those filtered selfies often present an unattainable look and are blurring the line of reality and fantasy for these patients". 199
- 199. Relatedly, the 2017 Annual American Academy of Facial Plastic and Reconstructive Surgery reported that 55% of surgeons in the United States reported seeing patients

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¹⁹⁶ Weingarden, H., Hoeppner, S. S., Snorrason, I., Greenberg, J. L., Phillips, K. A., & Wilhelm, S. (2021). Rates of remission, sustained remission, and recurrence in a randomized controlled trial of cognitive behavioral therapy versus supportive psychotherapy for body dysmorphic disorder. Depression and Anxiety, 38(7), 700–707. https://doi.org/10.1002/da.23148

¹⁹⁷ Phillips, K. A., Pagano, M. E., Menard, W., & Stout, R. L. (2006). A 12-month follow-up study of the course of body dysmorphic disorder. American Journal of Psychiatry, 163(5), 907–912. https://doi.org/10.1176/ajp.2006.163.5.907

¹⁹⁸ Rajanala, S., Maymone, M. B., & Vashi, N. A. (2018). Selfies—living in the era of filtered photographs. JAMA Facial Plastic Surgery, 20(6), 443–444. https://doi.org/10.1001/jamafacial.2018.0486

¹⁹⁹ Rajanala, S., Maymone, M. B., & Vashi, N. A. (2018). Selfies—living in the era of filtered photographs. JAMA Facial Plastic Surgery, 20(6), 443–444. https://doi.org/10.1001/jamafacial.2018.0486

who sought surgery to improve their selfie appearance²⁰⁰ – more than half of whom report that their social media use directly impacts the decision to pursue plastic surgery.²⁰¹

Data from 2019 indicates that among those pursuing plastic surgery, 32.9% report 200. frequent use of face editing apps. Moreover, among those using face editing apps, 87% reported that social media is the most common reason for using such face editing apps; and 56.5% reported that the face editing features directly underpinned their pursuit of cosmetic surgery.²⁰²

201. Population survey data from 2018 revealed that among men and women in the United States, higher social media investment demonstrated a positive association with consideration of cosmetic surgery.²⁰³ Moreover, this study also revealed that increased consideration of cosmetic surgery was noted in users of Instagram photo filters, relative to nonusers of Instagram photo filters.²⁰⁴

²⁰⁰ Rajanala, S., Maymone, M. B., & Vashi, N. A. (2018). Selfies—living in the era of filtered photographs. JAMA Facial 443-444. **Plastic** Surgery, 20(6), https://doi.org/10.1001/jamafacial.2018.0486

²⁰¹ Sammy Othman, Tanner Lyons, Jason E Cohn, Tom Shokri, Jason D Bloom, The Influence of Photo Editing Applications on Patients Seeking Facial Plastic Surgery Services, Aesthetic Surgery Journal, Volume 41. Issue March 2021, Pages NP101-NP110, https://doi.org/10.1093/asj/sjaa065

²⁰² Sammy Othman, Tanner Lyons, Jason E Cohn, Tom Shokri, Jason D Bloom, The Influence of Photo Editing Applications on Patients Seeking Facial Plastic Surgery Services, Aesthetic Surgery Issue Journal. Volume 41, 3, March 2021, Pages NP101-NP110, https://doi.org/10.1093/asj/sjaa065

²⁰³ Chen, J., Ishii, M., Bater, K. L., Darrach, H., Liao, D., Huynh, P. P., Reh, I. P., Nellis, J. C., Kumar, A. R., & Ishii, L. E. (2019). Association between the use of social media and photograph editing applications, self-esteem, and cosmetic surgery acceptance. JAMA Facial Plastic Surgery, 21(5), 361–367. https://doi.org/10.1001/jamafacial.2019.0328

²⁰⁴ Chen, J., Ishii, M., Bater, K. L., Darrach, H., Liao, D., Huynh, P. P., Reh, I. P., Nellis, J. C., Kumar, A. R., & Ishii, L. E. (2019). Association between the use of social media and photograph editing applications, self-esteem, and cosmetic surgery acceptance. JAMA Facial Plastic Surgery, 21(5), 361–367. https://doi.org/10.1001/jamafacial.2019.0328

202. In 2019, a letter published in JAMA Facial Plastic Surgery noted "In fact, it is not uncommon to visit patients looking for rhinoplasty who often request a particular shape for their nose or a specific correction of a defect. In most of these cases, their request is the result of a distorted reality facilitated by an incorrect use of photo editing programs", further adding "we strongly agree with the authors who assert that the pervasiveness of these filtered images may even act as a trigger and lead to body dysmorphic disorder (BDD)."²⁰⁵

203. Another article published in 2019 in JAMA Facial Plastic Surgery noted "A consequence [of photo filters] is increased pressure on plastic surgeons and dermatologists to manage unrealistic expectations driven by unrealistic images of postoperative results posted on social media that often do not reflect a normal postoperative picture." The same article also added "Because it can act as a trigger, we propose that patient use of social media be acknowledged when considering the diagnostic criteria [for BDD]".

²⁰⁵ Pendolino AL, Ottaviano G. Social Networks and the Rhinoplasty Patient. JAMA Facial Plast Surg. 2019 May 1;21(3):264-265. doi: 10.1001/jamafacial.2018.1391.

²⁰⁶ Maymone MBC, Rajanala S, Vashi NA. Social Networks and the Rhinoplasty Patient-Reply. JAMA Facial Plast Surg. 2019 May 1;21(3):265. doi: 10.1001/jamafacial.2019.0071.

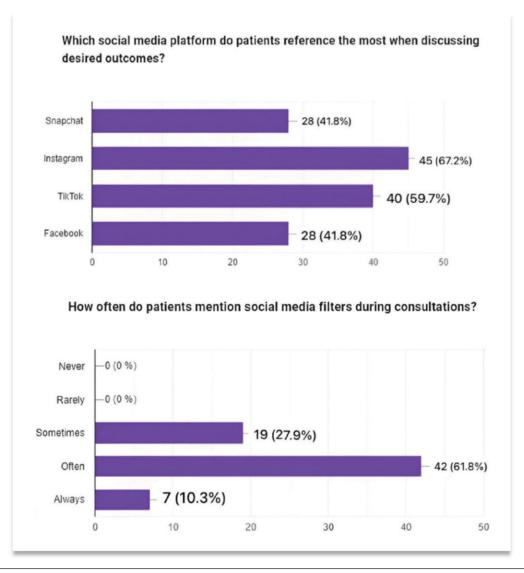


Fig. 38 Top graph: Social media platforms referenced to plastic surgeons during discussion of desired plastic surgery outcomes; 67% of respondents noted patients mentioned Instagram. Bottom graph: How often patients reference social media during plastic surgery consultations; 61.8% of respondents said "often."

204. Social media filters are frequently referenced when cosmetic surgery patients discuss their desired procedures and outcomes with plastic surgeons.²⁰⁷ Figure 38 above illustrates

²⁰⁷ Veras, E. M., Román Ledesma, S., Acosta Matos, J. A., Castillo Cortorreal, M. E., Goncharova, I., Rivera Bonilla, R. B., Rosario Rosario, A., & Encarnación Ramirez, M. D. (2025). Influence of social media filters on plastic surgery: A surgeon's perspective on evolving patient demands. Cureus. https://doi.org/10.7759/cureus.80483

the percentage of plastic surgery patients discussing social media apps and filters with their surgeons.

F. Evidence supports the causal connection of social media use with escalating body dysmorphic disorder symptomatology

205. In one study of over 1,000 adolescents and young adults who regularly use social media, the prevalence of BDD was $4.2\%^{208}$ – roughly 4 times the prevalence generally reported in non-clinical, community settings. Moreover, more than 60% of those using social media reported being very concerned with some part(s) of their body, and more than 64% of the sample reported that they think about these concerns a lot and wish they could think about them less.²⁰⁹ The presence of full threshold BDD was strongly associated with spending longer amounts of time on Instagram and Snapchat.

206. In a separate study of 16-18-year-olds, the frequency of image-based, but not text-based social media use, was positively correlated with BDD.²¹⁰ Moreover, appearance-based motivations for social media use was uniquely and positively associated with BDD, even after controlling for co-variates in predictive models.

207. In a national survey of almost 1,500 adults in Saudi Arabia, the percentage of probable BDD (determined by self-report surveys rather than physician interview) among those

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²⁰⁸ Alsaidan, M. S., Altayar, N. S., Alshmmari, S. H., Alshammari, M. M., Alqahtani, F. T., & Mohajer, K. A. (2020). The prevalence and determinants of body dysmorphic disorder among young social media users: A cross-sectional study. Dermatology Reports, 12(3). https://doi.org/10.4081/dr.2020.8774

²⁰⁹ Alsaidan, M. S., Altayar, N. S., Alshmmari, S. H., Alshammari, M. M., Alqahtani, F. T., & Mohajer, K. A. (2020). The prevalence and determinants of body dysmorphic disorder among young social media users: A cross-sectional study. Dermatology Reports, 12(3). https://doi.org/10.4081/dr.2020.8774

²¹⁰ Gupta, M., Jassi, A., & Krebs, G. (2023). The association between social media use and body dysmorphic symptoms in young people. Frontiers in Psychology, 14. https://doi.org/10.3389/fpsyg.2023.1231801

using Instagram and/or Snapchat for 4-7 hours per day was reported to be 29%, which was significantly higher than the prevalence of BDD in those using these social media platforms less than 4 hours per day.²¹¹ Moreover, individuals with BDD had a significantly higher risk of accepting cosmetic surgery.

208. In terms of the mechanisms driving this increased risk of BDD among social media users,²¹² empirical data in over 700 young adults has demonstrated a linearly increasing risk of body dysmorphic tendencies alongside increasing intensity of Instagram use.²¹³ In my opinion, similar mechanisms existing on other photo-based social media platforms (e.g., Snapchat, TikTok) would drive similar risk of harm.

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²¹¹ Ateq, K., Alhajji, M., & Alhusseini, N. (2024). The association between use of social media and the development of body dysmorphic disorder and attitudes toward cosmetic surgeries: A national survey. Frontiers in Public Health, 12. https://doi.org/10.3389/fpubh.2024.1324092

²¹² Senín-Calderón, C., Perona-Garcelán, S., & Rodríguez-Testal, J. F. (2020). The Dark Side of Instagram: Predictor model of dysmorphic concerns. International Journal of Clinical and Health Psychology, 20(3), 253–261. https://doi.org/10.1016/j.ijchp.2020.06.005

²¹³ Elsadai, Susanti RD, Eriyani T. (2022). Relationship between the Intensity of Instagram Utilization and the Tendence of Body Dysmorphic Disorder in Female Students. Mal J Med Health Sci 18(SUPP3): 106-109, Feb 2022

209. Separately, mediation analyses indicate that the impact of social media use upon dysmorphic concerns is amplified by appearance attention, appearance-related comparisons, ideas of reference about people commenting on their appearance, and emotional dysregulation (see Fig. 39 below). Additional lines of empirical inquiry have illustrated that appearance-related rejection sensitivity may mediate this impact of social media use upon the development dysmorphic concerns. In the development dysmorphic concerns.

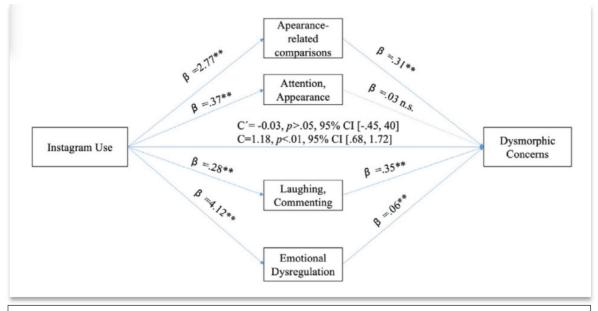


Fig. 39 Mediation model illustrating the pathways through which Instagram use may drive dysmorphic concerns.

210. An abundance of evidence has also illustrated how use of social media beauty filters may cultivate greater appearance dissatisfaction – which in turn is a cornerstone of BDD

²¹⁴ Senín-Calderón, C., Perona-Garcelán, S., & Rodríguez-Testal, J. F. (2020). The Dark Side of Instagram: Predictor model of dysmorphic concerns. International Journal of Clinical and Health Psychology, 20(3), 253–261. https://doi.org/10.1016/j.ijchp.2020.06.005

²¹⁵ Pitiruţ, I. B., Swami, V., Poamă-Neagră, T., & Enea, V. (2023). Appearance-based rejection sensitivity mediates the relationship between Instagram addiction and dysmorphic concerns in young adult women. Scandinavian Journal of Psychology, 65(2), 275–283. https://doi.org/10.1111/sjop.12973

psychopathology. For instance, among a study of 11th grade high school students, semi-structured interviews revealed that 71% of participants experienced reduced self-esteem, and feelings of inadequacy when juxtaposing their natural appearance with their filtered images.²¹⁶ The study indicates that these filters play a role in altering social identity, with 82% of students reporting a sense of pressure to adhere to societal beauty standards propagated by the filters.

- 211. In another study of college students in the United States, 100% of participants indicated that beauty filters and altered images altered their body image and self-esteem.²¹⁷ Specifically, participants in this study noted "I do think these filters are affecting the way we define beauty, because these social media platforms are creating filters that make us look a certain way. We do not look like these filters. My opinion on beauty filters, it does more harm than good. When I use filters, I start to compare myself, wishing I looked like these pretty filters all the time". 218
- 212. Additional empirical studies have illustrated how use of Snapchat beauty filters results in a tension between the temporary satisfaction and confidence boost derived from using filters, and the simultaneous self-discrepancy that affects some women negatively when viewing themselves differently without a filter.²¹⁹

²¹⁶ Saloni, Ms. and Gaurav, Urvashi, The Impact of Snapchat Filters on Self-esteem and Social Identity Among Female Adults (October 21, 2024). Proceedings of the 1st International Conference on Educational, Cultural and Societal Approaches in Literature, Communication, & Translation (ECSA_LCT 2024), Available at SSRN: https://ssrn.com/abstract=4994037 or http://dx.doi.org/10.2139/ssrn.4994037

²¹⁷ Eshiet, Janella, ""REAL ME VERSUS SOCIAL MEDIA ME:" FILTERS, SNAPCHAT DYSMORPHIA, AND BEAUTY PERCEPTIONS AMONG YOUNG WOMEN" (2020). Electronic Theses, Projects, and Dissertations. 1101.

²¹⁸ Eshiet, Janella, ""REAL ME VERSUS SOCIAL MEDIA ME:" FILTERS, SNAPCHAT DYSMORPHIA, AND BEAUTY PERCEPTIONS AMONG YOUNG WOMEN" (2020). Electronic Theses, Projects, and Dissertations. 1101.

²¹⁹ Alsaggaf RM. The Impact of Snapchat Beautifying Filters on Beauty Standards and Self-image: A Self-Discrepancy Approach. The European Conference on Arts & Humanities 2021 – Official

- Further evidence has demonstrated that using social media filters both increases the propensity for online social comparison of one's own filtered photo, and simultaneously reduces one's satisfaction with their real-life image and drives attempts to change one's appearance.²²⁰
- 214. Moreover, while there is an abundance of different types of filters available to social media users (beauty filters, animal filters, etc.), the most potent effect on reducing body satisfaction has been observed following the use of beauty filters which augment facial and bodily features in line an idealized and unrealistic beauty standard.²²¹
- Separately in a study of over 400 social media users, user of social media beauty 215. filters has been found to negatively impact perceived attractiveness, and self-esteem – and that this

Conference Proceedings. https://papers.iafor.org/wpcontent/uploads/papers/ecah2021/ECAH2021_60204.pdf

²²⁰ Schroeder, M., & Behm-Morawitz, E. (2025). Digitally curated beauty: The impact of slimming beauty filters on body image, weight loss desire, self-objectification, and anti-fat attitudes. Computers in Human Behavior, 165, 108519. https://doi.org/10.1016/j.chb.2024.108519

²²¹ Dijkslag, I. R., Block Santos, L., Irene, G., & Ketelaar, P. (2024). To beautify or uglify! the effects of augmented reality face filters on body satisfaction moderated by self-esteem and self-Computers identification. Human Behavior. 159, 108343. in https://doi.org/10.1016/j.chb.2024.108343

pathway is mediated by self-objectification and appearance comparisons, as illustrated in Fig. 40 below.²²²

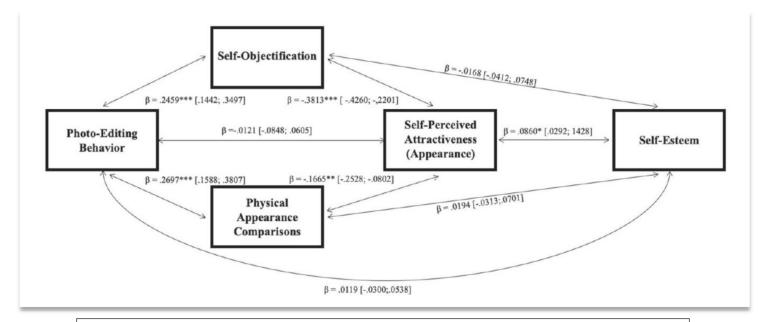


Fig. 40 Mediation model illustrating the pathways through which beauty filter use drives a reduction in perceived attractiveness and self-esteem.

- 216. In a study of muscle dysmorphia which is a specific subtype of BDD centering around muscularity-related concerns use of appearance enhancing filters was linearly associated with greater muscle dysmorphia symptomatology, including total symptomatology and Appearance Intolerance.²²³
- 217. In summary, body dysmorphic disorder is a deeply debilitating psychiatric illness, which can be difficult to recover from even with leading treatments. In weighing the totality of the evidence base, it appears evident that social media use portends significant risk for body

Ozimek, P., Lainas, S., Bierhoff, HW. et al. How photo editing in social media shapes self-perceived attractiveness and self-esteem via self-objectification and physical appearance comparisons. BMC Psychol 11, 99 (2023). https://doi.org/10.1186/s40359-023-01143-0

²²³ Ganson, K. T., Testa, A., Rodgers, R. F., & Nagata, J. M. (2024). Use of photo filters is associated with muscle dysmorphia symptomatology among adolescents and young adults. Body Image, 50, 101750. https://doi.org/10.1016/j.bodyim.2024.101750

XIII. Social Media Use Introduces a Significant Risk of Depression

in the pursuit of cosmetic surgery for dysmorphic concerns.

A. The psychopathology of depression has been well documented for centuries.

218. Depression is a common but serious psychiatric disorder, which is characterized by pervasive, persistent and profound feelings of sadness, hopelessness, and a loss of interest in activities that were previously enjoyed. Additional symptoms span behavioral and cognitive domains, and include fatigue, marked alterations in sleep and appetite regulation, impairments to concertation, feelings of worthlessness and guilt, and in some instance, suicidality. The earliest descriptions of depression in the medical literature were reported by Hippocrates (460-370 BC), who referred to conditions of 'melancholia'. In the last 100 years alone, more than 678,200 studies relating to depression have been published on the NIH-operated PubMed online library.

B. Depression has become increasingly prevalent in the United States over the last 20 years.

219. In leveraging data from National Health and Nutrition Examination Survey, which assessed over 5,000 Americans over the age of 12 years of age, empirical data illustrated that 5.4% of Americans experienced clinical depression in any two-week period between 2005-2006.²²⁴ By 2013-2016, the number of Americans surveyed had experienced clinical depression within any

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²²⁴ Pratt LA, Brody DJ. (2008). Depression in the United States Household Population, 2005-2006. National Center for Health Statistics. http://medbox.iiab.me/modules/encdc/www.cdc.gov/nchs/data/databriefs/db07.htm

two-week timeframe had risen to over 8%.²²⁵ From 2015-2020, the prevalence of Americans experiencing clinical depression in any two-week period had risen again to 9.2%. ²²⁶ By June 2021, a meta-analysis of 49 articles noted the prevalence of severe depression to be 12.9%.²²⁷

- 220. With specific respect to adolescents, a study of over 119,000 high school students in the United States revealed that that between 2007 and 2021, the prevalence of depressive symptoms among American high school students increased from 28% to over 42%.²²⁸
 - C. Depression can be difficult to fully recover from – even with cutting edge treatments. In the majority of cases, depression can be a relapsing, chronic illness for those afflicted.
- Psychotherapy does not result in illness remission for more than half of all patients 221. with depression. Meta-analyses indicate that only approximately 41% of those with depression respond to specialized psychotherapy.²²⁹ When combining psychotherapy and psychotropic

²²⁵ Brody DJ, Pratt LA, Hughes JP. (2018). Prevalence of Depression Among Adults Aged 20 and United States. 2013-2016.NCHS Data Brief No. 303. February 2018. https://www.cdc.gov/nchs/products/databriefs/db303.htm

²²⁶ Trends in U.S. Depression Prevalence From 2015 to 2020: The Widening Treatment Gap Goodwin, Renee D. et al. American Journal of Preventive Medicine, Volume 63, Issue 5, 726 – 733.

²²⁷ Ettman, C. K., Fan, A. Y., Subramanian, M., Adam, G. P., Badillo Goicoechea, E., Abdalla, S. M., Stuart, E. A., & Galea, S. (2023). Prevalence of depressive symptoms in U.S. adults during the COVID-19 pandemic: A systematic review. SSM - Population Health, 21, 101348. https://doi.org/10.1016/j.ssmph.2023.101348

²²⁸ Trends in depressive symptoms among high school students with and without health-risk behaviors in the United States: A population-based study. Bommersbach, Tanner J. et al. The Lancet Regional Health – Americas, Volume 42, 101000

²²⁹ Cuijpers P, Karyotaki E, Ciharova M, Miguel C, Noma H, Furukawa TA. The effects of psychotherapies for depression on response, remission, reliable change, and deterioration: A metaanalysis. Acta Psychiatr Scand. 2021 Sep;144(3):288-299. doi: 10.1111/acps.13335.

medication, approximately 46% of those with depression respond to treatment.²³⁰ Relatively novel and emerging treatments such as bright light therapy²³¹ and non-invasive bran stimulation treatments²³² bring about a treatment response in approximately 40-44% of patients.

222. A meta-analysis with a 4.4-year follow-up period noted that, among the minority of patients who recover during treatment, approximately 39% experience a relapse into depressive symptomatology within 4 years.²³³ Even within 12 months of treatment, up to 61% may experience a new depressive episode.²³⁴

D. Depression exacerbates eating disorder symptoms and severity

223. It is generally well accepted that depression, alongside anxiety, serves as risk factors in the development of eating disorders.²³⁵

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²³⁰ Casacalenda, N., Perry, J. C., & Looper, K. (2002). Remission in major depressive disorder: A comparison of pharmacotherapy, psychotherapy, and control conditions. American Journal of Psychiatry, 159(8), 1354–1360. https://doi.org/10.1176/appi.ajp.159.8.1354

²³¹ Menegaz de Almeida A, Aquino de Moraes FC, Cavalcanti Souza ME, et al. Bright Light Therapy for Nonseasonal Depressive Disorders: A Systematic Review and Meta-Analysis. JAMA Psychiatry. 2025;82(1):38–46. doi:10.1001/jamapsychiatry.2024.2871

²³² Borrione L, Cavendish BA, Aparicio LVM, et al. Home-Use Transcranial Direct Current Stimulation for the Treatment of a Major Depressive Episode: A Randomized Clinical Trial. JAMA Psychiatry. 2024;81(4):329–337. doi:10.1001/jamapsychiatry.2023.4948

²³³ Steinert C, Hofmann M, Kruse J, Leichsenring F. Relapse rates after psychotherapy for depression - stable long-term effects? A meta-analysis. J Affect Disord. 2014 Oct;168:107-18. doi: 10.1016/j.jad.2014.06.043

²³⁴ Johansson O, Lundh LG, Bjärehed J. 12-Month Outcome and Predictors of Recurrence in Psychiatric Treatment of Depression: A Retrospective Study. Psychiatr Q. 2015 Sep;86(3):407-17. doi: 10.1007/s11126-015-9341-y.

²³⁵ Barakat, S., McLean, S.A., Bryant, E. et al. Risk factors for eating disorders: findings from a rapid review. J Eat Disord 11, 8 (2023). https://doi.org/10.1186/s40337-022-00717-4

- 224. High anxiety and depression is associated with more severe eating disorder symptoms. ²³⁶ Moreover, this association between depression and anxiety, and subsequent eating disorder symptomatology, is even more pronounced for younger adolescents. ²³⁷
- 225. Moreover, meta-analyses have indicated that baseline depression and anxiety symptoms may predict the outcome of eating disorders treatment.²³⁸

E. Increasing social media use exacerbates depressive symptomatology.

226. In a study of over 10,000 14-year-old adolescents between 2012-2018,²³⁹ empirical findings illustrated that increasing social media use was linearly associated with greater rates of depressive symptoms, especially among female adolescents. Over 43% of adolescent girls used social media for over 3 hours per day, which equated to a 26% increase in depressive symptoms relative to those using social media for less than 3 hours per day. Girls using social media for more than 5 hours per day reported a 50% increase in depressive symptoms, relative to those using for less than 3 hours per day. In the same study, increasing social media use was also associated with

²³⁶ Sander, J., Moessner, M., & Bauer, S. (2021). Depression, Anxiety and Eating Disorder-Related Impairment: Moderators in Female Adolescents and Young Adults. International Journal of Environmental Research and Public Health, 18(5), 2779. https://doi.org/10.3390/ijerph18052779

²³⁷ Sander, J., Moessner, M., & Bauer, S. (2021). Depression, Anxiety and Eating Disorder-Related Impairment: Moderators in Female Adolescents and Young Adults. International Journal of Environmental Research and Public Health, 18(5), 2779. https://doi.org/10.3390/ijerph18052779

²³⁸ Vall, E., & Wade, T. D. (2015). Predictors of treatment outcome in individuals with eating disorders: A systematic review and meta-analysis. International Journal of Eating Disorders, 48(7), 946–971. https://doi.org/10.1002/eat.22411

²³⁹ Social Media Use and Adolescent Mental Health: Findings From the UK Millennium Cohort Study

Kelly, Yvonne et al. eClinicalMedicine, Volume 6, 59 – 68. https://www.thelancet.com/journals/eclinm/article/piis2589-5370(18)30060-9/fulltext

poorer sleep, poorer self-esteem, poorer body image, and greater likelihood of online harassment. $(Fig. 41)^{240}$

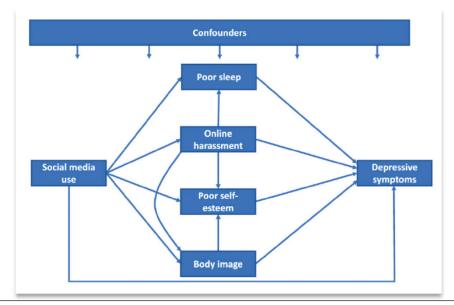


Fig. 41 Empirically derived model of how social media use exacerbates depression.

- 227. In a scoping review of 42 studies assessing the association between social media use and depression among adolescents, the majority of studies were found to demonstrate a positive correlation between time spent on social media and depression.²⁴¹ Higher frequency of social media use was also associated with suicidal ideation and suicide attempts.
- 228. A meta-analysis of over 62 studies (including over 450,000 research participants) between 2013 to 2018 despite this time period being prior to the introduction of more recent design features of social media apps which are known to additively impact depression noted that depression symptoms were significantly correlated with (i) time spent using social media, (ii) and

²⁴⁰ Social Media Use and Adolescent Mental Health: Findings From the UK Millennium Cohort Study. Kelly, Yvonne et al. eClinicalMedicine, Volume 6, 59 – 68. https://www.thelancet.com/journals/eclinm/article/piis2589-5370(18)30060-9/fulltext

²⁴¹ Vidal C, Lhaksampa T, Miller L, Platt R. Social media use and depression in adolescents: a scoping review. Int Rev Psychiatry. 2020 May;32(3):235-253. doi: 10.1080/09540261.2020.1720623.

the intensity of social media use.²⁴² Moreover, (iii), the relationship between depressive symptoms and problematic social media use (characterized by properties of addictive social media behaviors) was especially significant. Included below is a forest plot of effect sizes for the relationship between problematic social media use and depression symptoms in studies from 2013-2018 (Fig. $42)^{243}$

Study Name	Statistics for Each Study					Correlation and 95% CI			
	r	Lower Limit	Upper Limit	Z	p				
Andreassen et al., 2016	.19	.18	.20	29.50	< .001	i i		1	
Blachnio et al., 2015	.45	.39	.51	12.54	< .001		1 -		
Brailovskaia & Margraf, 2017	.22	.08	.36	2.97	< .001		-	- 7	
Ceglarek et al., 2016	.09	.01	.17	2.15	.03				
Chae et al., 2016	.42	.31	.52	7.08	< .001		-	-	
Flynn et al., 2018	.27	.20	.34	7.40	< .001		1		
Holmgren & Coyne, 2017	.29	.20	.37	6.26	< .001		1 4	.	
Jasso-Medrano et al., 2018	.25	.15	.34	4.92	< .001		_ -	-	
Kircaburun et al., 2018a	.34	.26	.42	7.57	< .001		1 4	-	
Kircaburun et al., 2018b (Study 1)	.37	.32	.42	13.12	< .001				
Kircaburun et al., 2018b (Study 2)	.22	.03	.29	6.15	< .001		- -	-	
Koc & Gulyagci, 2013	.28	.15	.37	5.77	< .001		1 -	F I	
Van Rooij et al., 2017	.45	.43	.48	20.42	< .001				
Veiga et al., 2018	.29	.19	.38	5.37	< .001		1 4	⊦7	
Vernon et al., 2017	.31	.25	.37	9.46	< .001		1 1		
Wang et al., 2018	.18	.25	.28	3.46	< .001		-	- I	
Wegmann et al., 2015	.48	.40	.56	9.61	< .001		1 -	•	
Wood et al., 2016	.18	.07	.31	2.61	.01		-	T	
Worsley et al., 2018	.27	.21	.33	8.87	< .001			ı I	
Yam et al., 2018	.18	.07	.35	3.17	<.001		-		
Random effects	.29	.23	.35	9.25	<.001	1	•		
					-1.0	0 -0.5	0.0	0.5	1.

Fig. 42 Forest plot for 20 studies assessing effect sizes for the relationship between problematic social networking site use and depression symptoms.

²⁴² Cunningham, S., Hudson, C.C. & Harkness, K. Social Media and Depression Symptoms: a Meta-Analysis. Res Child Psychopathol 49, Adolesc 241-253 (2021).https://doi.org/10.1007/s10802-020-00715-7

²⁴³ Cunningham, S., Hudson, C.C. & Harkness, K. Social Media and Depression Symptoms: a Child Psychopathol 49, Meta-Analysis. Res Adolesc 241-253 (2021).https://doi.org/10.1007/s10802-020-00715-7

- 229. Of note, this meta-analysis did not reveal one single study which noted a non-positive relationship between problematic social media use and depression.²⁴⁴
- 230. A particularly large systematic review and meta-analysis of over 530 studies assessing social media use and depressive symptoms in adolescents and young adults noted a significant association between social media use and depression in the majority of cross-sectional studies (N=476) studied.²⁴⁵
- 231. With specific regard to highly visual social media platforms, such as Instagram and Snapchat, a study of over 500 adolescents between 6th and 11th Grade noted that students using highly visual social media platforms for over 2 hours per day reported significantly higher internalizing symptoms (depression, anxiety), and greater body image concerns.²⁴⁶ Moreover, these data suggest that the link between highly visual social media and internalizing symptoms is mediated by the impact of highly visual social media and body image indicating a myriad of negative effects of highly visual social media use.
- 232. A separate study of over 1,000 high school students indicated that 'online social network addiction' was significantly associated with greater depression in youth.²⁴⁷ Moreover,

²⁴⁴ Cunningham, S., Hudson, C.C. & Harkness, K. Social Media and Depression Symptoms: a Meta-Analysis. Res Child Adolesc Psychopathol 49, 241–253 (2021). https://doi.org/10.1007/s10802-020-00715-7

²⁴⁵ Shin, M., Juventin, M., Wai Chu, J. T., Manor, Y., & Kemps, E. (2022). Online media consumption and depression in young people: A systematic review and meta-analysis. Computers in Human Behavior, 128, 107129. https://doi.org/10.1016/j.chb.2021.107129.

²⁴⁶ Marengo, D., Longobardi, C., Fabris, M. A., & Settanni, M. (2018). Highly-visual social media and internalizing symptoms in adolescence: The mediating role of Body Image Concerns. Computers in Human Behavior, 82, 63–69. https://doi.org/10.1016/j.chb.2018.01.003

²⁴⁷ Li, J.-B., Lau, J. T., Mo, P. K., Su, X.-F., Tang, J., Qin, Z.-G., & Gross, D. L. (2017). Insomnia partially mediated the association between problematic internet use and depression among secondary school students in China. Journal of Behavioral Addictions, 6(4), 554–563. https://doi.org/10.1556/2006.6.2017.085

these data additionally indicate that the link between online social network addiction and depression was partially mediated by the positive relationship between online social network addiction and insomnia in youth.

- Several studies have illustrated a dose response effect, in that greater social media 233. use linearly corresponds to increasing depression. In one study of over 1,700 young adults, a linear dose-response effect was evident, even after controlling co-variates thought to impact outcomes.²⁴⁸ Other studies have illustrated a linear association between the number of social media platforms used both depression and anxiety, even after taking into account the total time spent on social media.249
- Longitudinal studies assessing patterns of social media use over time are illustrative. One study which followed over 450 adolescents over 6 years, noted 3 distinct trajectories of usage – (i) moderate use, which stayed steady over time, (ii) increasing use, which incrementally increased over time, and (iii) peak users, where use increased quickly over time and then returned to baseline levels within a few years.²⁵⁰ Notably, patterns of increasing usage, in either a steadily increasing pattern, or in a pattern which peaks and regresses, was associated with greater depression, delinquency, and aggression.

²⁴⁸ Lin, L. yi, Sidani, J. E., Shensa, A., Radovic, A., Miller, E., Colditz, J. B., Hoffman, B. L., Giles, L. M., & Primack, B. A. (2016). Association between social media use and depression among U.S. young adults. Depression and Anxiety, 33(4), 323-331. https://doi.org/10.1002/da.22466

²⁴⁹ Primack, B. A., Shensa, A., Escobar-Viera, C. G., Barrett, E. L., Sidani, J. E., Colditz, J. B., & James, A. E. (2017). Use of multiple social media platforms and symptoms of depression and anxiety: A nationally-representative study among U.S. young adults. Computers in Human Behavior, 69, 1–9. https://doi.org/10.1016/j.chb.2016.11.013

²⁵⁰ Coyne, S. M., Padilla-Walker, L. M., Holmgren, H. G., & Stockdale, L. A. (2018). Instagrowth: A longitudinal growth mixture model of social media time use across adolescence. Journal of Research on Adolescence, 29(4), 897–907. https://doi.org/10.1111/jora.12424

- Individual differences are important to note. For instance, while social media comparison and feedback-seeking has been broadly linked to greater depressive symptoms, this is especially true of adolescents lower in perceived popularity.²⁵¹ Moreover, depressive symptoms are more greatly associated with adolescents who report higher frequency of negative emotional responses to social media experiences, even up to one year later.²⁵²
- 236. While some reviews suggested that social media use may offer potential benefits to users, including those relating to connectedness and social support, many have also underscored the clear risk for negative impacts on mental health functioning, ²⁵³ particularly among those showing increasing patterns of usage.
- In summary, depression is a deeply debilitating psychiatric illness, which can be difficult to recover from – even with leading treatments. In weighing the totality of the evidence base, it appears evident that social media use is a significant causal factor for depression, which is most pronounced in young people, and which increases alongside increasing usage and the development of addictive social media use.

²⁵¹ Nesi, J., Prinstein, M.J. Using Social Media for Social Comparison and Feedback-Seeking: Gender and Popularity Moderate Associations with Depressive Symptoms. J Abnorm Child Psychol 43, 1427–1438 (2015). https://doi.org/10.1007/s10802-015-0020-0

²⁵² Nesi, J., Rothenberg, W. A., Bettis, A. H., Massing-Schaffer, M., Fox, K. A., Telzer, E. H., ... Prinstein, M. J. (2021). Emotional Responses to Social Media Experiences Among Adolescents: Longitudinal Associations with Depressive Symptoms. Journal of Clinical Child & Adolescent Psychology, 51(6), 907–922. https://doi.org/10.1080/15374416.2021.1955370

²⁵³ Seabrook EM, Kern ML, Rickard NS. Social Networking Sites, Depression, and Anxiety: A Systematic Review. JMIR Ment Health 2016;3(4):e50. doi: 10.2196/mental.5842

XIV. Social Media use Among Adolescents is Causally Connected to a Greater Risk for Suicidal Ideation, Suicidal Behavior, and Self-Harm

238. Suicide is the second most common cause of death for young people worldwide, and the most common cause in females aged 15–19 years.²⁵⁴ Self-harm, defined as intentional self-injury or self-poisoning, usually begins and becomes most frequent between the ages of 13 and 15 years, particularly in girls.²⁵⁵

239. Suicide and self-harm are rapidly growing problems among adolescents and young adults in the United States. Between 2006-2016 the rates of suicide in youth aged 10-24 years increased by 39.1%.²⁵⁶ Notably, emergency room visits for self-harm-related injuries increased by 50.6% between 2000-2015, with the most significant increases observed from 2008 onwards.²⁵⁷ This increase has been the most profound among young females. For example, between 2009-2015, the rates of emergency room visits for self-harm among young females increased by over 189%.²⁵⁸

²⁵⁴ Patton, G. C., Coffey, C., Sawyer, S. M., Viner, R. M., Haller, D. M., Bose, K., Vos, T., Ferguson, J., & Mathers, C. D. (2009). Global patterns of mortality in young people: a systematic analysis of population health data. The Lancet, 374(9693), 881–892. https://doi.org/10.1016/s0140-6736(09)60741-8.

²⁵⁵ Rodham K, Hawton K (2009) Epidemiology and phenomenology of nonsuicidal self-injury. In: Nock MK, editor. Understanding nonsuicidal self-injury: Origins, Assessment, and Treatment. Washington DC: American Psychological Association. 37–62.

²⁵⁶ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based injury statistics query and reporting system, http://www.cdc.gov/injury/wisqars/index.html. 2017. Accessed July 16, 2018.

²⁵⁷ Mercado MC, Holland K, Leemis RW, Stone DM, Wang J. Trends in Emergency Department Visits for Nonfatal Self-inflicted Injuries Among Youth Aged 10 to 24 Years in the United States, 2001-2015. JAMA. 2017;318(19):1931–1933. doi:10.1001/jama.2017.13317

²⁵⁸ Mercado MC, Holland K, Leemis RW, Stone DM, Wang J. Trends in Emergency Department Visits for Nonfatal Self-inflicted Injuries Among Youth Aged 10 to 24 Years in the United States, 2001-2015. JAMA. 2017;318(19):1931–1933. doi:10.1001/jama.2017.13317

Case 4:22-md-03047-YGR

- 240. Notably, young people who self-harm access online platforms more frequently than those who do not self-harm.²⁵⁹ These data underscore the need for careful assessment of how social media use relates to self-harm and suicidal behaviors.
- 241. In a study of 29 adolescents treated with emergency room psychiatric treatment due to depression and suicidality, approximately 80% of patients reported using Snapchat everyday, while over 68% report using Instagram everyday, and over 50% report using Facebook every day (Fig. 43).²⁶⁰

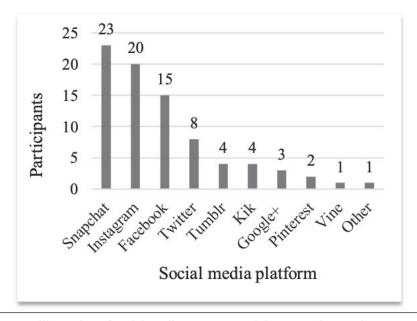


Fig. 43 An illustration of social media use among adolescents who require emergency psychiatric treatment due to depression and suicidality

²⁵⁹ Mitchell KJ, Ybarra ML. Online behavior of youth who engage in self-harm provides clues for preventive intervention. Preventive Medicine. 2007; 45: 392–6; Lewis SP, Mahdy JC, Michal NJ, Arbuthnott AE. Googling Self-injury: the state of health information obtained through online searches for self-injury. JAMA Pediatrics. 2014; 168(5): 443–9.

²⁶⁰ Carey JL, Carreiro S, Chapman B, Nader N, Chai PR, Pagoto S, Jake-Schoffman DE. SoMe and Self Harm: The use of social media in depressed and suicidal youth. Proc Annu Hawaii Int Conf Syst Sci. 2018;2018:3314-3319. doi: 10.24251/HICSS.2018.420.

- An early systematic review conducted in 2016 included 26 studies which assessed 242. social media use and self-harm behaviors between 2000-2012.²⁶¹ This review identified possibly beneficial and harmful effects of social media upon self-harm. On one hand, this study noted that social media may provide a sense of community for those engaging in self-harm – providing users with a sense of being understood and acceptance. On the other hand, several studies illustrated the potential harms of social media use. Notably, one study included in this review assessed 9,990 members of social media suicidal ideation communities and found that the likelihood of suicidal ideation increased linearly alongside the number of suicidal ideation communities to which users belonged.²⁶²
- The same review noted that while belonging to self-harm-related social media 243. groups may provide acceptance and validation, this also further isolated users from the rest of society and normalized self-harm behaviors. Concerningly, up to 50% of posts conveyed methods to conceal self-harm behaviors, and up to 26% of posts conveyed concrete self-harm plans. ²⁶³
- 244. Of even greater concern, this review also highlighted the presence of live self-harm videos on social media platforms, which included both asphyxiation - up to 88% of which resulted in visible seizures on the video, and cutting – up to 40% showed obvious blood flowing/gushing

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²⁶¹ Dyson, M. P., Hartling, L., Shulhan, J., Chisholm, A., Milne, A., Sundar, P., Scott, S. D., & Newton, A. S. (2016). A Systematic Review of Social Media Use to Discuss and View Deliberate Self-Harm Acts. PloS One, 11(5), e0155813. https://doi.org/10.1371/journal.pone.0155813.

²⁶² Masuda, N., Kurahashi, I., & Onari, H. (2013). Suicide Ideation of Individuals in Online Social Networks. PLoS ONE, 8(4), e62262. https://doi.org/10.1371/journal.pone.0062262.

²⁶³ Dyson, M. P., Hartling, L., Shulhan, J., Chisholm, A., Milne, A., Sundar, P., Scott, S. D., & Newton, A. S. (2016). A Systematic Review of Social Media Use to Discuss and View Deliberate Self-Harm Acts. PloS One, 11(5), e0155813. https://doi.org/10.1371/journal.pone.0155813.

or a gaping open wound.²⁶⁴ Typical response to such videos included deliberate provocation, encouragement of self-harm, making suicide pacts, or requesting information on suicide methods.

More recent data have illustrated how the proliferation of self-harm-related content 245. may be augmented by the hashtag feature of social media apps. ²⁶⁵ For instance, a content crawler identified over 324,000 self-harm related posts on social media between 2016-2018 by searching 68 self-harm-related hashtags. 266 Importantly, the prevalence of self-harm-related hashtags

²⁶⁴ Dyson, M. P., Hartling, L., Shulhan, J., Chisholm, A., Milne, A., Sundar, P., Scott, S. D., & Newton, A. S. (2016). A Systematic Review of Social Media Use to Discuss and View Deliberate Self-Harm Acts. PloS One, 11(5), e0155813. https://doi.org/10.1371/journal.pone.0155813.

²⁶⁵ Xian, L., Vickers, S. D., Giordano, A. L., Lee, J., Kim, I. K., & Ramaswamy, L. (2019). #selfharm on Instagram: Quantitative Analysis and Classification of Non-Suicidal Self-Injury. 61–70. https://doi.org/10.1109/cogmi48466.2019.00017.

²⁶⁶ Xian, L., Vickers, S. D., Giordano, A. L., Lee, J., Kim, I. K., & Ramaswamy, L. (2019). #selfharm on Instagram: Quantitative Analysis and Classification of Non-Suicidal Self-Injury. 61–70. https://doi.org/10.1109/cogmi48466.2019.00017.

increased markedly over time (see Fig. 44 below), and this increase most pronounced on Instagram.²⁶⁷

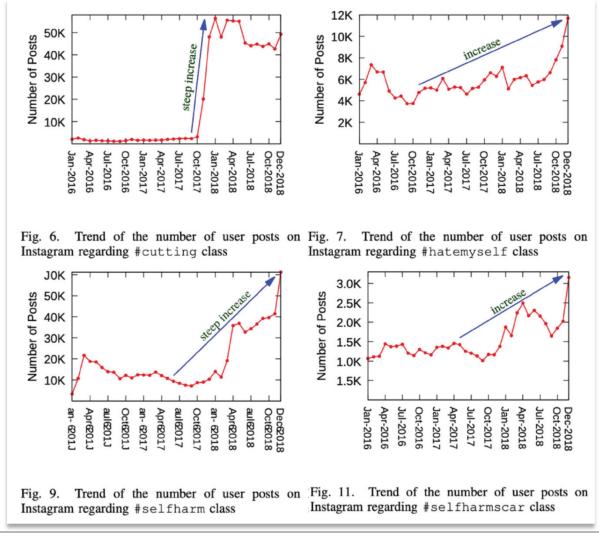


Fig. 44 An illustration of the proliferation of self-harm-related hashtags on social media between 2016-2018.

246. In a separate study assessing the effects of exposure to self-harm content on Instagram, in over 1,200 young adults, it was noted that exposure to self-harm-related content on Instagram was related to increased suicidal ideation, self-harm and emotional disturbance in real

²⁶⁷ Xian, L., Vickers, S. D., Giordano, A. L., Lee, J., Kim, I. K., & Ramaswamy, L. (2019). #selfharm on Instagram: Quantitative Analysis and Classification of Non-Suicidal Self-Injury. 61–70. https://doi.org/10.1109/cogmi48466.2019.00017.

time. ²⁶⁸ Moreover, exposure to self-harm on Instagram predicted suicidal ideation, self-harm and emotional disturbance one month later ²⁶⁹ – indicating a powerful and lasting effect.

- A separate study has illustrated that higher (self-reported) screen time (which 247. included social media, watching videos, and gaming) among adolescents was prospectively and positively associated with higher odds of suicidality two years later.²⁷⁰
- A meta-analysis of over 61 studies in 2021 noted significant relationship between 248. problematic social media use, viewing suicidal behaviors on social media, and cybervictimization on social media and subsequent self-harm behaviors and suicidality.²⁷¹
- 249. A more recent meta-analysis in 2023 noted that every single study included in analyses found harmful effects of viewing self-harm-related content on social media platforms. ²⁷² These included escalation of self-harm, reinforcement of engagement behaviors (e.g. commenting

²⁶⁸ Arendt, F., Scherr, S., & Romer, D. (2019). Effects of exposure to self-harm on social media: Evidence from a two-wave panel study among young adults. New Media & Society, 21(11-12), 2422-2442. https://doi.org/10.1177/1461444819850106.

²⁶⁹ Arendt, F., Scherr, S., & Romer, D. (2019). Effects of exposure to self-harm on social media: Evidence from a two-wave panel study among young adults. New Media & Society, 21(11-12), 2422–2442. https://doi.org/10.1177/1461444819850106

²⁷⁰ Chu J, Ganson KT, Baker FC, et al. Screen time and suicidal behaviors among U.S. children 9-11 years old: a prospective cohort study. Prev Med. 2023;169:107452.

²⁷¹ Nesi, J., Burke, T. A., Bettis, A. H., Kudinova, A. Y., Thompson, E. C., MacPherson, H. A., Fox, K. A., Lawrence, H. R., Thomas, S. A., Wolff, J. C., Altemus, M. K., Soriano, S., & Liu, R. T. (2021). Social media use and self-injurious thoughts and behaviors: A systematic review and meta-analysis. Clinical Psychology Review, 87(87), 102038. https://doi.org/10.1016/j.cpr.2021.102038

²⁷² Susi, K., Glover-Ford, F., Stewart, A., Rebecca Knowles Bevis, & Hawton, K. (2023). Research Review: Viewing self-harm images on the internet and social media platforms: systematic review of the impact and associated psychological mechanisms. Journal of Child Psychology and Psychiatry, 64(8). https://doi.org/10.1111/jcpp.13754

and sharing images), encouragement of social comparison (comparing own self-harm with others), development of a self-harm identity, social connection perpetuating or escalating self-harm, and emotional, cognitive, and physiological impacts triggering self-harm urges and acts. In keeping with previous meta-analyses, positive effects were also noted in *some* of the studies included, including self-harm mitigation or reduction, promotion of self-harm recovery, encouraging social connection and help-giving.

250. In further underscoring the impact of social media upon suicidality, a study in South Korea utilized social media data on suicide-related and dysphoria-related entries, both which were highly associated with suicide frequency to develop a model predicting suicide rates at the population level.²⁷³ Figure 45 below illustrates predicted suicides (red line) based off social media data, and observed suicides (blue line).²⁷⁴

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Won, H.-H., Myung, W., Song, G.-Y., Lee, W.-H., Kim, J.-W., Carroll, B. J., & Kim, D. K. (2013). Predicting national suicide numbers with social media data. PLoS ONE, 8(4). https://doi.org/10.1371/journal.pone.0061809

Won, H.-H., Myung, W., Song, G.-Y., Lee, W.-H., Kim, J.-W., Carroll, B. J., & Kim, D. K. (2013). Predicting national suicide numbers with social media data. PLoS ONE, 8(4). https://doi.org/10.1371/journal.pone.0061809

Fig. 45 Predicted suicides (red line) as comparted to actual suicides (blue line) nation-wide. Pink vertical bars signify a one-month period after a celebrity death.

251. Importantly, social media content relating to self-harm has been shown to include challenges which encourage users to engage in incrementally more severe forms of self-harm. The Blue Whale Challenge was one such challenge, which encouraged youth to participate in a series of tasks or challenges over a 50- day period that gradually increased in their self-harming nature, culminating in a final suicide challenge.²⁷⁵ These trends tend to spread rapidly across a global network of users (see Fig. 46 below), and proliferate many months before news articles emerge relating to these dangerous trends.²⁷⁶

²⁷⁵ Sousa D, Filho J, Bezerra Cavalcanti R, et al. The impact of the 'Blue Whale' game in the rates of suicide: Short psychological analysis of the phenomenon. Int J Soc Psychiatry 2017;63:796e7.

²⁷⁶ Sumner, S. A., Galik, S., Mathieu, J., Ward, M., Kiley, T., Bartholow, B., Dingwall, A., & Mork, P. (2019). Temporal and Geographic Patterns of Social Media Posts About an Emerging Game. Journal Suicide of Adolescent Health, 65(1), 94–100. https://doi.org/10.1016/j.jadohealth.2018.12.025

Fig. 46 Spread of social media posts containing pro- Blue Whale Challenge messages world-wide from February 15, 2017 to June 6, 2017.

Systematic reviews have reliably indicated that cybervictimization on social media 252. demonstrates a robust association with suicide risk in adolescents.²⁷⁷ It has been put forth that unique features of the social media environment (e.g., publicness, availability, quantifiability) shape the experience of cyberbullying and concomitant suicide risk.²⁷⁸ Below, Fig. 47 illustrates

²⁷⁷ Morales-Arjona, I., Benítez-Hidalgo, V., Ruiz-Pérez, I., Higueras-Callejón, C., & Pastor-Moreno, G. (2024). Cyberbullying and Suicidal Behavior, Self-Harm, and Nonsuicidal Self-Injury: A Systematic Review of Longitudinal Studies. Cyberpsychology, Behavior, and Social Networking, 27(10), 683-691. https://doi.org/10.1089/cyber.2024.0097

²⁷⁸ Massing-Schaffer, M., & Nesi, J. (2019). Cybervictimization and Suicide Risk in Adolescence: An Integrative Model of Social Media and Suicide Theories. Adolescent Research Review. https://doi.org/10.1007/s40894-019-00116-y.

a theoretical model of how unique facets of the social media landscape shape suicide risk.²⁷⁹

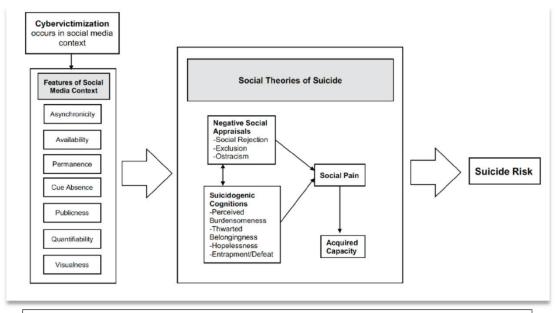


Fig. 47 Empirically supported model for the influence of social media features on suicide

- 253. While a research consensus exists in underscoring that more research needs to be done in this important domain, the totality of the evidence base to date suggests that social media use results in an increased risk of suicidality and self-harm, especially in vulnerable or young social media users.
- 254. In summary, it is evident that social media use is causally linked to the development and exacerbation of self-harm and suicidality - both contemporaneously and over the longer-term. Importantly, specific design features of social media apps have been linked to the broad proliferation and uptake of self-harm-related content.

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²⁷⁹ Massing-Schaffer, M., & Nesi, J. (2019). Cybervictimization and Suicide Risk in Adolescence: An Integrative Model of Social Media and Suicide Theories. Adolescent Research Review. https://doi.org/10.1007/s40894-019-00116-y.

XV. The Role of Social Media in Anxiety

- A. The psychopathology of anxiety disorders has been well documented for
- 255. Anxiety disorders are relatively common but serious psychiatric disorders, which are characterized by excessive and pervasive fear and worry, which impairs functioning in everyday life. Emotional features center around excessive worry and fear, a sense of impending doom or danger, and catastrophizing around future-oriented outcomes. Behavioral features include palpitations, sweating, trembling hands, shortness of breath, dizziness, chest tightness and shortness of breath, muscle tension, and sleep disturbances.
- 256. Anxiety disorders have been reported in the medical literature since 1690, when 'nervous cases' were described which mirror currently recognized symptoms of anxiety disorders, and in 1733 'The English Malady' was described, which included symptoms of generalized anxiety disorder. The term 'anxiety neurosis' was first coined in the 1800's and anxiety disorders were recognized in the first edition of the DSM in 1952. In the last 100 years alone, more than 360,000 peer-reviewed studies have been published on anxiety disorders.
- Specific types of anxiety disorders include (i) social anxiety disorder, which is 257. characterized by a fear of being judged negatively or being embarrassed in social situations, (ii) generalized anxiety disorder, which is characterized by excessive worry about many aspects of life, (iii) panic disorder, which is characterized by recurrent and unexpected panic attacks, (iv) agoraphobia, which is characterized by fear of situations where escape may be difficult, (v) specific phobia, which is characterized by extreme fear of a specific object, situation or activity, and (vi) separation anxiety disorder, which is characterized by intense fear of being apart from attachment figures.

- B. Anxiety has become increasingly prevalent globally, and in the United States over the last 20 years.
- 258. An estimated 4% of the global population has an anxiety disorder, although the prevalence in the United States is 6%.²⁸⁰
- 259. The greatest incidence of anxiety disorders occurs in 10-14-year-olds (see Fig. 48 below).²⁸¹

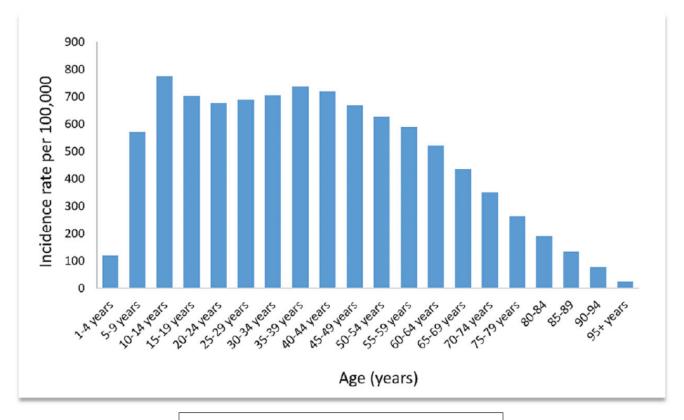


Fig. 48 Incidence of anxiety per 100,000 people by age.

²⁸⁰ Syed Fahad Javaid, Ibrahim Jawad Hashim, Muhammad Jawad Hashim, Stip, E., Mohammed Abdul Samad, & Alia Al Ahbabi. (2023). Epidemiology of anxiety disorders: Global burden and sociodemographic associations. Middle East Current Psychiatry, 30(1). https://doi.org/10.1186/s43045-023-00315-3

²⁸¹ Syed Fahad Javaid, Ibrahim Jawad Hashim, Muhammad Jawad Hashim, Stip, E., Mohammed Abdul Samad, & Alia Al Ahbabi. (2023). Epidemiology of anxiety disorders: Global burden and sociodemographic associations. Middle East Current Psychiatry, 30(1). https://doi.org/10.1186/s43045-023-00315-3

C. Anxiety disorders can be difficult to fully recover from – even with combinatorial treatments of psychotherapy and medication.

A large-scale study of treatment outcomes in youth with anxiety disorders revealed that up to 20-46% of those receiving psychotherapy recovered from their disorder during treatment. 282 Similarly, up to 34-46% of those taking psychotropic medication recovered from their disorder during treatment.²⁸³ Those undergoing both medication and therapy demonstrated recovery in up to 46-68% of cases. Over the longer-term, up to 47% of those with anxiety disorders will still have anxiety disorders after 4 years post-treatment.²⁸⁴

²⁸² Ginsburg, G. S., Kendall, P. C., Sakolsky, D., Compton, S. N., Piacentini, J., Albano, A. M., Walkup, J. T., Sherrill, J., Coffey, K. A., Rynn, M. A., Keeton, C. P., McCracken, J. T., Bergman, L., Iyengar, S., Birmaher, B., & March, J. (2011). Remission after acute treatment in children and adolescents with anxiety disorders: Findings from the CAMS. Journal of Consulting and Clinical Psychology, 79(6), 806–813. https://doi.org/10.1037/a0025933

²⁸³ Ginsburg, G. S., Kendall, P. C., Sakolsky, D., Compton, S. N., Piacentini, J., Albano, A. M., Walkup, J. T., Sherrill, J., Coffey, K. A., Rynn, M. A., Keeton, C. P., McCracken, J. T., Bergman, L., Iyengar, S., Birmaher, B., & March, J. (2011). Remission after acute treatment in children and adolescents with anxiety disorders: Findings from the CAMS. Journal of Consulting and Clinical Psychology, 79(6), 806–813. https://doi.org/10.1037/a0025933

²⁸⁴ Kodal, A., Fjermestad, K., Bjelland, I., Gjestad, R., Öst, L.-G., Bjaastad, J. F., Haugland, B. S. M., Havik, O. E., Heiervang, E., & Wergeland, G. J. (2018). Long-term effectiveness of cognitive behavioral therapy for youth with anxiety disorders. Journal of Anxiety Disorders, 53(53), 58–67. https://doi.org/10.1016/j.janxdis.2017.11.003

260. Over the even longer-term, most youth treated for anxiety disorders will either remain chronically unwell, or relapse after a brief period of recovery, as illustrated in the figure below (Fig. 49).²⁸⁵

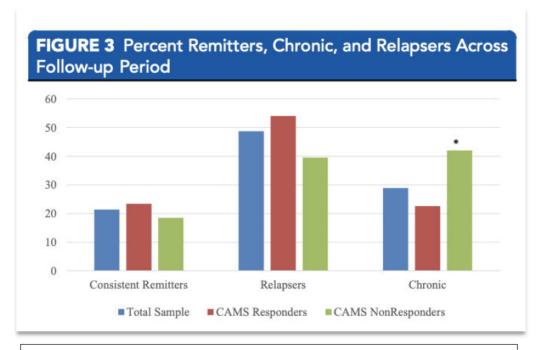


Fig. 49 The prevalence of youth with anxiety disorders who are categorized as remitters, chronically ill, or relapsers.

D. Increasing social media use is associated with greater anxiety.

261. In 2017, a nationally representative sample of over 500 young adults illustrated that more time using social media was linearly associated with greater symptoms of anxiety.²⁸⁶ The

²⁸⁵ Ginsburg, G. S., Becker-Haimes, E. M., Keeton, C., Kendall, P. C., Iyengar, S., Sakolsky, D., Albano, A. M., Peris, T., Compton, S. N., & Piacentini, J. (2018). Results From the Child/Adolescent Anxiety Multimodal Extended Long-Term Study (CAMELS): Primary Anxiety Outcomes. Journal of the American Academy of Child & Adolescent Psychiatry, 57(7), 471–480. https://doi.org/10.1016/j.jaac.2018.03.017

²⁸⁶ Vannucci, A., Flannery, K. M., & Ohannessian, C. M. (2017). Social media use and anxiety in emerging adults. Journal of Affective Disorders, 207, 163–166. https://doi.org/10.1016/j.jad.2016.08.040

same study illustrated that greater daily social media use was associated with increased odds of scoring above a clinical cutoff for the likely presence of DSM-5 anxiety disorders. ²⁸⁷

- A large-scale meta-analysis of over 53 studies, including over 59,900 participants, 262. found a strong positive correlation between problematic social media use and social anxiety.²⁸⁸
- A separate meta-analysis of 209 studies and over 250,000 participants showed a 263. statistically significant positive association between problematic social media use and generalized anxiety, social anxiety, attachment anxiety, and fear of missing out.²⁸⁹
- An additional systematic review of 182 studies (over 1,169,000 participants) and meta-analysis of 98 studies (over 102,000 participants) illustrated a positive association between social media use, depression, and anxiety.²⁹⁰ Moreover, problematic social media use was associated with depression, anxiety, and sleep problems.²⁹¹

²⁸⁷ Vannucci, A., Flannery, K. M., & Ohannessian, C. M. (2017). Social media use and anxiety in adults. Journal of Affective Disorders, 207, 163–166. emerging https://doi.org/10.1016/j.jad.2016.08.040

²⁸⁸ Wu W, Huang L, Yang F. Social anxiety and problematic social media use: A systematic review and meta-analysis. Addict Behav. 2024 Jun;153:107995. doi: 10.1016/j.addbeh.2024.107995.

²⁸⁹ Du, M., Zhao, C., Hu, H., Ding, N., He, J., Tian, W., Zhao, W., Lin, X., Liu, G., Chen, W., Wang, S., Wang, P., Xu, D., Shen, X., & Zhang, G. (2024). Association between problematic social networking use and anxiety symptoms: a systematic review and meta-analysis. BMC Psychology, 12(1). https://doi.org/10.1186/s40359-024-01705-w

²⁹⁰ Ahmed, O., Walsh, E., Dawel, A., Khawlah Alateeq, Andrea, D., & Cherbuin, N. (2024). Social media use, mental health and sleep: A systematic review with meta-analyses. Journal of Affective Disorders, 367. https://doi.org/10.1016/j.jad.2024.08.193

²⁹¹ Ahmed, O., Walsh, E., Dawel, A., Khawlah Alateeq, Andrea, D., & Cherbuin, N. (2024). Social media use, mental health and sleep: A systematic review with meta-analyses. Journal of Affective Disorders, 367. https://doi.org/10.1016/j.jad.2024.08.193

- 265. In a similar vein, at least five other large-scale meta-analyses have concluded that social media use is associated with greater anxiety.²⁹²
- 266. In summary, anxiety disorders are debilitating psychiatric illnesses, which can be difficult to recover from even with leading treatments. In weighing the totality of the evidence base, it appears evident that social media use portends significant risk for worsening anxiety, which increases alongside increasing usage and the development of problematic social media use.
 - E. Based on these compelling data, many professional organizations have released position statements to warn of the potential harms caused by social media, particularly to young people and vulnerable populations.
- 267. The <u>American Psychological Association</u> released a Health Advisory Notice on social media use in adolescence in 2023,²⁹³ and followed up in 2024 with a warning entitled 'Potential risks of content, features, and functions: The science of how social media affects

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²⁹² Nan, Y., Qin, J., Li, Z., Natalie Garyeung Kim, Yeonjoo, S., & Lynn Carol Miller. (2024). Is Social Media Use Related to Social Anxiety? A Meta-Analysis. Mass Communication and Society, 27(3), 1–34. https://doi.org/10.1080/15205436.2024.2321533; Hancock, J., Liu, S. X., Luo, M., & Mieczkowski, H. (2022, March 9). Psychological Well-Being and Social Media Use: A Meta-Analysis of Associations between Social Media Use and Depression, Anxiety, Loneliness, Eudaimonic, Hedonic Social Well-Being. Papers.ssrn.com. and https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4053961; Wu, W., Huang, L., & Yang, F. (2024). Social anxiety and problematic social media use: A systematic review and metaanalysis. Addictive Behaviors, 107995–107995. https://doi.org/10.1016/j.addbeh.2024.107995; Shannon, H., Bush, K., Villeneuve, P., Hellemans, K., & Guimond, S. (2022). Problematic social media use in adolescents and young adults: A meta-analysis. JMIR Mental Health, 9(4). https://doi.org/10.2196/33450; Prizant-Passal, S., Shechner, T., & Aderka, I. M. (2016). Social anxiety and internet use – A meta-analysis: What do we know? What are we missing? Computers in Human Behavior, 62, 221-229. https://doi.org/10.1016/j.chb.2016.04.003; Ma, J. (2021). A Meta-Analysis of Social Media Usage with Stress, Anxiety, and Depression. 2021 the 3rd International Conference on Intelligent Medicine Health. and https://doi.org/10.1145/3484377.3487041; Budury, S., & Fitriasari, A. (2019). PENGGUNAAN MEDIA SOSIAL TERHADAP KEJADIAN DEPRESI, KECEMASAN DAN STRES PADA MAHASISWA. Bali Medika Jurnal, 6(2), 205–208. https://doi.org/10.36376/bmj.v6i2.87.

American Psychological Association. (n.d.). American Psychological Association. https://www.apa.org/topics/social-media-internet/health-advisory-adolescent-social-media-use.

youth.²⁹⁴ In this statement, the APA overviewed how specific design features of social media apps may be especially detrimental to the mental youth of children and adolescents, including AI-recommended content, likes and follower counts, the infinite scroll, push notifications, and the use and retention of youth data. Specific recommendations were put forth, included below in Figure 50²⁹⁵:

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²⁹⁴ American Psychological Association. (2024, April). Potential risks of content, features, and functions: The science of how social media affects youth. Apa.org. https://www.apa.org/topics/social-media-internet/youth-social-media-2024

²⁹⁵ American Psychological Association. (2024, April). Potential risks of content, features, and functions: The science of how social media affects youth. Apa.org. https://www.apa.org/topics/social-media-internet/youth-social-media-2024

Recommendations from APA's health advisory on social media use in adolescence

- 1. Youth using social media should be encouraged to use functions that create opportunities for social support, online companionship, and emotional intimacy that can promote healthy socialization.
- 2. Social media use, functionality, and permissions/consenting should be tailored to youths' developmental capabilities; designs created for adults may not be appropriate for children.
- 3. In early adolescence (i.e., typically 10-14 years), adult monitoring (i.e., ongoing review, discussion, and coaching around social media content) is advised for most youths' social media use; autonomy may increase gradually as kids age and if they gain digital literacy skills. However, monitoring should be balanced with youths' appropriate needs for privacy.
- 4. To reduce the risks of psychological harm, adolescents' exposure to content on social media that depicts illegal or psychologically maladaptive behavior, including content that instructs or encourages youth to engage in health-risk behaviors, such as self-harm (e.g., cutting, suicide), harm to others, or those that encourage eating-disordered behavior (e.g., restrictive eating, purging, excessive exercise) should be minimized, reported, and removed; moreover, technology should not drive users to this content.
- 5. To minimize psychological harm, adolescents' exposure to "cyberhate" including online discrimination, prejudice, hate, or cyberbullying especially directed toward a marginalized group (e.g., racial, ethnic, gender, sexual, religious, ability status), or toward an individual because of their identity or allyship with a marginalized group should be minimized.
- 6. Adolescents should be routinely screened for signs of "problematic social media use" that can impair their ability to engage in daily roles and routines, and may present risk for more serious psychological harms over time.
- 7. The use of social media should be limited so as to not interfere with adolescents' sleep and physical activity.
- 8. Adolescents should limit use of social media for social comparison, particularly around beauty- or appearance-related content.
- 9. Adolescents' social media use should be preceded by training in social media literacy to ensure that users have developed psychologically-informed competencies and skills that will maximize the chances for balanced, safe, and meaningful social media use.
- 10. Substantial resources should be provided for continued scientific examination of the positive and negative effects of social media on adolescent development.

Fig. 50 Recommendations from APA's health advisory on social media use in adolescence.

268. In tandem, the American Psychiatric Association recently noted "Increasing social media and online engagement have led to complex challenges in psychiatric practice (Applebaum & Kopelman, 2014). From a data perspective, these platforms often contain personal health

- The official APA position states that "The APA supports federal oversight of 269. security and privacy standards to protect vulnerable populations and their personal information from predatory algorithms and deceptive content on online platforms, through reasonable content standards and transparent self-policing efforts to prevent the proliferation of harmful content such as: promotion of self-harm, encouraging addiction-like behaviors, deceptive online content, and promotion of marketing of unlawful products or services."
- 270. The President of the American Medical Association recently stated, "With near universal social media use by America's young people, these apps and sites introduce profound risk and mental health harms in ways we are only now beginning to fully understand". ²⁹⁷

Social-Media-and-Online-Harms.pdf

²⁹⁶ Chan, S., Hilty, D., Tartaglia, J., & Torous, J. (2023, July). Position Statement on Promoting Health and Protecting Vulnerable Populations from Social Media and Online Harm [Review of Position Statement on Promoting Health and Protecting Vulnerable Populations from Social Media and Online Harm]. Www.psychiatry.org; American Psychiatric Association. https://www.psychiatry.org/getattachment/846525c1-12f1-483d-893d-874e1726de54/Position-

²⁹⁷ Set limits, find positives to minimize social media harm to kids. (2024, November 27). American Medical Association. https://www.ama-assn.org/delivering-care/population-care/setlimits-find-positives-minimize-social-media-harm-kids

- 271. The <u>U.S. Surgeon General</u> released an Advisory in 2023, relating to social media use in youth.²⁹⁸ This Advisory noted:
- Up to 95% of young people aged 13-17 report using a social media platform. Nearly two thirds of teenagers report using social media every day and one third report using social media "almost constantly.
- Children and adolescents who spend more than 3 hours a day on social media face double the risk of mental health problems including experiencing symptoms of depression and anxiety. This is concerning as a recent survey showed that teenagers spend an average of 3.5 hours a day on social media.²⁹⁹ And when asked about the impact of social media on their body image, 46% of adolescents aged 13-17 said social media makes them feel worse.
- We cannot conclude that social media is sufficiently safe for children and adolescents.

XVI. Social Media Use and Emotional Investment in Social Media is Causally Connected to Sleep Disturbances

- A. The psychopathology of sleep disorders has been well documented for centuries.
- 272. Sleep disorders represent a family of relatively common disorders which centrally disrupt a person's normal sleep patterns. Sleep disorders may centrally relate to (i) a profound difficulty in falling asleep as in insomnia disorder; (ii) persistent episodes of sudden sleep multiple times within the same day as in narcolepsy; (iii) persistent and excessive sleepiness despite getting at least 7 hours of sleep as in hypersomnolence disorder; (iv) breathing obstruction during sleep, as in sleep apnea; (v) abnormal sleep-related behaviors such as sleepwalking, nightmares, or sleep paralysis; as in parasomnias; and (vi) non-volitional and sudden urges to move legs during sleep, as in restless legs syndrome.

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²⁹⁸ U.S. Department of Health and Human Services. (2025, February 19). Social Media and Youth Mental Health. HHS.gov. https://www.hhs.gov/surgeongeneral/reports-and-publications/youth-mental-health/social-media/index.html

²⁹⁹ U.S. Department of Health and Human Services. (2025, February 19). Social Media and Youth Mental Health. HHS.gov. https://www.hhs.gov/surgeongeneral/reports-and-publications/youth-mental-health/social-media/index.html

273. Sleep disorders have been reported in the medical literature since the early 1800's, when 'The Philosophy of Sleep' was published as a compendium of sleep disorders.³⁰⁰ To date, insomnia remains the most studied of all sleep disorders, and since the turn of the 20th century, more than 40,000 peer-reviewed publications have been oriented specifically towards insomnia.

Currently, the American Academy of Sleep Medicine recommends 8-10 hours of 274. sleep every 24 hours for adolescents, as the gold standard to promote adolescent health, wellness and daytime alertness.³⁰¹ The guidelines also note "Regularly sleeping fewer than the number of recommended hours is associated with attention, behavior, and learning problems. Insufficient sleep also increases the risk of accidents, injuries, hypertension, obesity, diabetes, and depression. Insufficient sleep in teenagers is associated with increased risk of self-harm, suicidal thoughts, and suicide attempts."

В. Sleep disorders have become increasingly prevalent globally, and in the United States over the last 20 years.

275. It is generally well accepted that sleep disorders are relatively common in the United States. However, while almost a third of the population complain of sleep difficulties, diagnoses has been historically warranted in 6-15% of the population.³⁰²

276. Changing trends over time reflect an upward-shifting prevalence of sleep disorders. For instance, in 2000 the reported prevalence of clinical insomnia in community samples of

The philosophy of sleep / by Robert MacNish. (2024). Wellcome Collection. https://wellcomecollection.org/works/rmw6q923

³⁰¹ Teen Sleep Duration Health Advisory - AASM Recommendation. (n.d.). American Academy Association Researchers. Medicine for Sleep Clinicians and of https://aasm.org/advocacy/position-statements/teen-sleep-duration-health-advisory/

Ohayon, M. M. (2011). Epidemiological Overview of sleep Disorders in the General Population. Sleep Medicine Research, 2(1), 1–9. https://doi.org/10.17241/smr.2011.2.1.1

adolescents was 4%.³⁰³ By 2020, chronic insomnia was reported in approximately 20% of young females, and over 10% of young males (see Fig. 51).³⁰⁴

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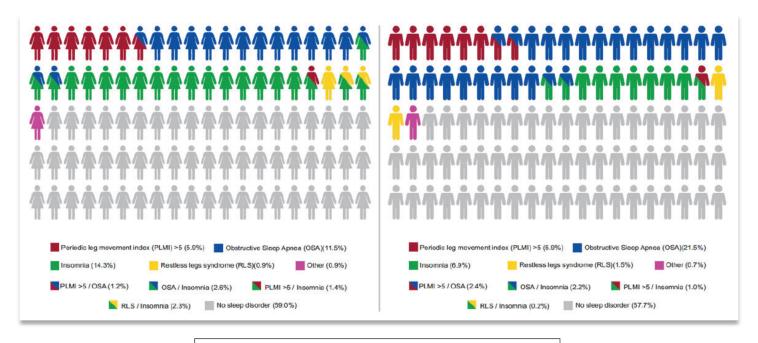


Fig. 51 The prevalence of sleep disorders in the United States.

277. In examining temporal trends in insomnia and daytime sleepiness among over 30,000 adults in the National Health Interview Survey in 2002, 2007 and 2012,³⁰⁵ self-reported data around insomnia revealed an increasing prevalence rate from 17.5% in 2002, to 19.2% in 2012 – with the most significant increases coming from young adults (ages 18-24 years) in the

³⁰³ Ohayon, M. M., Roberts, R. E., Zulley, J., Smirne, S., & Priest, R. G. (2000). Prevalence and Patterns of Problematic Sleep Among Older Adolescents. Journal of the American Academy of Child & Adolescent Psychiatry, 39(12), 1549–1556. https://doi.org/10.1097/00004583-200012000-00019.

³⁰⁴ Nigel McArdle, Sarah V Ward, Romola S Bucks, Kathleen Maddison, Anne Smith, Rae-Chi Huang, Craig E Pennell, David R Hillman, Peter R Eastwood, The prevalence of common sleep disorders in young adults: a descriptive population-based study, Sleep, Volume 43, Issue 10, October 2020, zsaa072, https://doi.org/10.1093/sleep/zsaa072.

³⁰⁵ Ford, E. S., Cunningham, T. J., Giles, W. H., & Croft, J. B. (2015). Trends in insomnia and excessive daytime sleepiness among US adults from 2002 to 2012. Sleep Medicine, 16(3), 372–378. https://doi.org/10.1016/j.sleep.2014.12.008.

adult-based sample. 306 Similarly, when leveraging a large nationwide Canadian sample of adults, the prevalence of self-reported insomnia increased from 15.6% in 2002 to over 17.1% in 2012.³⁰⁷

Separately, empirical data has illustrated reducing length of sleep in the same time 278. period. For instance, between 2004 and 2018 one study illustrated a gradually reducing volume of overall sleep among adults in the United States, with significantly reduced sleep noted from 2010 onwards, and in black Americans (see Fig. 52 below). 308

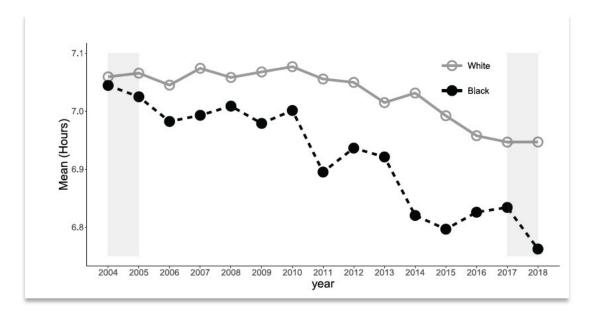


Fig. 52 Overall trends in sleep duration in hours for white and black adults aged 25-69.

³⁰⁶ Ford, E. S., Cunningham, T. J., Giles, W. H., & Croft, J. B. (2015). Trends in insomnia and excessive daytime sleepiness among US adults from 2002 to 2012. Sleep Medicine, 16(3), 372-378. https://doi.org/10.1016/j.sleep.2014.12.008.

³⁰⁷ Garland, S. N., Rowe, H., Repa, L. M., Fowler, K., Zhou, E. S., & Grandner, M. A. (2018). A decade's difference: 10-year change in insomnia symptom prevalence in Canada depends on sociodemographics and health status. Sleep Health, 4(2), 160-165. https://doi.org/10.1016/j.sleh.2018.01.003.

³⁰⁸ Xu, J., Luo, L., Gamaldo, A., Verdery, A., Hardy, M., Buxton, O. M., & Xiao, Q. (2023). Trends in sleep duration in the U.S. from 2004 to 2018: A decomposition analysis. SSM -Population Health, 25, 101562. https://doi.org/10.1016/j.ssmph.2023.101562.

279. By 2022, meta-analyses including over 200,000 participants indicated that the prevalence of self-reported sleep disturbances in adolescents had risen to 34%.³⁰⁹

C. Sleep disorders are causally connected with broader health ailments and poorer psychiatric functioning.

- 280. Epidemiological studies found a 40-50% comorbidity prevalence between insomnia and psychiatric disorders.³¹⁰ Sleep disturbances also worsen the outcomes of several psychiatric disorders, leading to more severe psychopathology and incomplete remission.³¹¹
- 281. Individuals with narcolepsy have been found to have a three-fold higher prevalences of mood disorders and anxiety disorders, suggesting a strong association between narcolepsy and certain psychiatric condition.³¹²
- 282. Hypertension, obesity, heart disease and the risk of stroke ³¹³ are all elevated among those with poor sleep quality and duration.

³⁰⁹ Cai, H., Chen, P., Jin, Y., Zhang, Q., Cheung, T., Ng, C. H., Xiang, Y.-T., & Feng, Y. (2024). Prevalence of sleep disturbances in children and adolescents during COVID-19 pandemic: a meta-analysis and systematic review of epidemiological surveys. Translational Psychiatry, 14(1), 1–10. https://doi.org/10.1038/s41398-023-02654-5.

³¹⁰ Fornaro, M., Caiazza, C., Simone, G., Rossano, F., & Andrea de Bartolomeis. (2023). Insomnia and related mental health conditions: Essential neurobiological underpinnings towards reduced polypharmacy utilization rates. Sleep Medicine. https://doi.org/10.1016/j.sleep.2023.11.033.

³¹¹ Fornaro, M., Caiazza, C., Simone, G., Rossano, F., & Andrea de Bartolomeis. (2023). Insomnia and related mental health conditions: Essential neurobiological underpinnings towards reduced polypharmacy utilization rates. Sleep Medicine. https://doi.org/10.1016/j.sleep.2023.11.033.

Ruoff, C. M. (2017, February 22). High Rates of Psychiatric Comorbidity in Narcolepsy: Findings From the Burden of Narcolepsy Disease (BOND) Study of 9,312 Patients in the United States. Psychiatrist.com; The Journal of Clinical Psychiatry. https://www.psychiatrist.com/jcp/sleep-disturbance-and-mental-disturbance.

Reis, C., Dias, S., Rodrigues, A. M., Sousa, R. D., Gregório, M. J., Branco, J., Canhão, H., & Paiva, T. (2018). Sleep duration, lifestyles and chronic diseases: a cross-sectional population-based study. Sleep Science, 11(4), 217–230. https://doi.org/10.5935/1984-0063.20180036; CDC. (2025, February 5). Sleep. Chronic Disease Indicators. https://www.cdc.gov/cdi/indicator-definitions/sleep.html

D. Increasing social media use is causally connected with greater sleep disturbances.

- 284. With specific regards to adolescent social media use, empirical data has illustrated how greater overall social media use, greater nighttime social media use, and greater emotional investment in social media use are all associated with poorer sleep quality. Nighttime social media use predicts poorer sleep quality even after controlling for anxiety, depression and self-esteem. Self-esteem.
- 285. Early adolescence appears to be a particularly sensitive period with one study noting how active social media use is associated with delayed bedtimes during early adolescence more than what is evident in later adolescence.³¹⁷ However, even in mid-adolescence, social media use predicted the later increase in exhaustion one year later.³¹⁸

³¹⁴ Burch, J. B., Delage, A. F., Zhang, H., McLain, A. C., Ray, M. A., Miller, A., Adams, S. A., & Hébert, J. R. (2024). Sleep disorders and cancer incidence: examining duration and severity of diagnosis among veterans. Frontiers in Oncology, 14, 1336487. https://doi.org/10.3389/fonc.2024.1336487.

³¹⁵ Woods, H. C., & Scott, H. (2016). Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. Journal of Adolescence, 51(1), 41–49. https://doi.org/10.1016/j.adolescence.2016.05.008.

³¹⁶ Woods, H. C., & Scott, H. (2016). Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. Journal of Adolescence, 51(1), 41–49. https://doi.org/10.1016/j.adolescence.2016.05.008.

Maksniemi, E., Hietajärvi, L., Ketonen, E. E., Lonka, K., Puukko, K., & Salmela-Aro, K. (2022). Intraindividual associations between active social media use, exhaustion, and bedtime vary according to age—A longitudinal study across adolescence. Journal of Adolescence, 94(3), 401–414. https://doi.org/10.1002/jad.12033

Maksniemi, E., Hietajärvi, L., Ketonen, E. E., Lonka, K., Puukko, K., & Salmela-Aro, K. (2022). Intraindividual associations between active social media use, exhaustion, and bedtime vary according to age—A longitudinal study across adolescence. Journal of Adolescence, 94(3), 401–414. https://doi.org/10.1002/jad.12033.

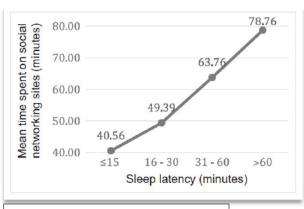
- In a separate sample of over 4,000 adolescents in the United States, it was shown 286. that adolescents who checked or posted on social media more frequently also reported higher levels of daytime sleepiness.³¹⁹ This was exacerbated further in those who perceived social media to be highly important.
- 287. Ecological momentary assessment studies have indicated that greater social media use amongst youth is associated with going to sleep later, and with less stable patterns of both sleep timing and sleep duration.³²⁰
- Additional lines of inquiry have revealed a consistent and linear relationship 288. between social media use and poorer sleep quality.³²¹ In a separate study of over 700 young adults, increasing social media use was associated with a linearly increasing delay in sleep latency, and decreasing sleep duration.³²² See figures 53 and 54 below.

³¹⁹ Hamilton, J., & Lee, W. (2020). Associations Between Social Media, Bedtime Technology Use Rules, and Daytime Sleepiness Among Adolescents: Cross-sectional Findings from a Nationally-Representative Sample (Preprint). JMIR Mental Health, 8(9). https://doi.org/10.2196/26273.

³²⁰ Hamilton, J. L., Chand, S., Reinhardt, L., Ladouceur, C. D., Silk, J. S., Moreno, M., Franzen, P. L., & Bylsma, L. M. (2020). Social media use predicts later sleep timing and greater sleep variability: An ecological momentary assessment study of youth at high and low familial risk for depression. Journal Adolescence, 83, 122–130. https://doi.org/10.1016/j.adolescence.2020.07.009.

³²¹ Levenson, J. C., Shensa, A., Sidani, J. E., Colditz, J. B., & Primack, B. A. (2016). The association between social media use and sleep disturbance among young adults. Preventive Medicine, 85(85), 36–41. https://doi.org/10.1016/j.ypmed.2016.01.001.

³²² Alsulami, A., Bakhsh, D., Baik, M., Merdad, M., & Aboalfaraj, N. (2018). Assessment of Sleep Quality and its Relationship to Social Media Use Among Medical Students. Medical Science Educator, 29(1), 157–161. https://doi.org/10.1007/s40670-018-00650-9.



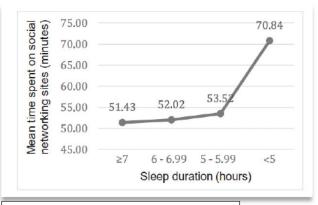


Fig. 53 Increasing sleep latency with increasing social media use.

Fig. 54 Decreasing sleep duration with increasing social media use.

- Systematic reviews have consistently revealed associations between social media 289. use and poorer sleep quality and when assessed in longitudinal study designs, social media use is a risk factor for both poorer sleep outcomes, and poorer mental health outcomes.³²³
- 290. Meta-analyses including over 100,000 subjects have indicated that the volume of time spent on social media is associated with unhealthy sleep and the development of insomnia over time. 324 Additional meta-analyses, while replicating the consensus findings that social media use negatively impacts sleep health, indicated that age might moderate these effects - with younger social media users experiencing the largest impacts on sleep health.³²⁵

³²³ Ryan, T., Allen, K. A., Gray, D. L., & McInerney, D. M. (2017). How Social Are Social Media? A Review of Online Social Behaviour and Connectedness. Journal of Relationships Research, 8, e8. doi:10.1017/jrr.2017.13; Tariq, A., Muñoz Sáez, D., & Khan, S. R. (2021). Social media use and family connectedness: A systematic review of quantitative literature. New Media & Society, 24(3), 815-832. https://doi.org/10.1177/14614448211016885

³²⁴ Pagano, M., Bacaro, V., & Crocetti, E. (2023). "Using digital media or sleeping ... that is the question". A meta-analysis on digital media use and unhealthy sleep in adolescence. Computers in Human Behavior, 146, 107813. https://doi.org/10.1016/j.chb.2023.107813.

³²⁵ Chen, Y., Li, S., Tian, Y., Li, D., & Yin, H. (2024). Problematic Social Media Use may be Ruining Our Sleep: A Meta-Analysis on the Relationship Between Problematic Social Media Use Quality. International Journal of Mental Addiction. Sleep Health and https://doi.org/10.1007/s11469-024-01407-9.

- 291. Among the largest systematic reviews and meta-analyses to date, one meta-analysis which included over 1,000,000 subjects indicated that problematic social media use is associated with sleep problems.³²⁶
 - Based on these compelling data, several professional organizations have Ε. released position statements to offer recommendations to safeguard against the potential sleep-related harms caused by social media.
- 292. The American Academy of Sleep Medicine recently shared data noting that 93% of Gen Z reported losing sleep and staying up beyond their bedtime as a result of being on social media.³²⁷ To mitigate this risk, the American Academy of Sleep Medicine guidelines recommend that young people set time limits on social media apps, disconnect from all electronic devices at least 30 mins before bedtime, and leave their phone in another room while sleeping. 328
- 293. The National Sleep Foundation recommends avoiding screen use at nighttime. stating explicitly "Maybe it's time we all ignored the endless feeds", and "You can lol at that meme or react to what your friend just posted to social media tomorrow". 329

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³²⁶ Ahmed, O., Walsh, E., Dawel, A., Khawlah Alateeq, Andrea, D., & Cherbuin, N. (2024). Social media use, mental health and sleep: A systematic review with meta-analyses. Journal of Affective Disorders, 367. https://doi.org/10.1016/j.jad.2024.08.193.

³²⁷ American Academy of Sleep Medicine. (2022, September 7). Ninety-three Percent of Gen Z Admit to Staying up Due to Social Media. American Academy of Sleep Medicine – Association for Sleep Clinicians and Researchers. https://aasm.org/are-you-tiktok-tired-93-of-gen-z-admit-tostaying-up-past-their-bedtime-due-to-social-media/.

³²⁸ American Academy of Sleep Medicine. (2022, September 7). Ninety-three Percent of Gen Z Admit to Staying up Due to Social Media. American Academy of Sleep Medicine – Association for Sleep Clinicians and Researchers. https://aasm.org/are-you-tiktok-tired-93-of-gen-z-admit-tostaying-up-past-their-bedtime-due-to-social-media/.

³²⁹ National Sleep Foundation. (2022, March 13). Screen Use Disrupts Precious Sleep Time. National Sleep Foundation. https://www.thensf.org/screen-use-disrupts-precious-sleep-time/.

294. In summary, it is evident that problematic social media use is causally linked to the exacerbation of sleep disturbances. These social media-driven sleep disturbances include poorer sleep quality, difficulty falling asleep, and difficulty staying asleep - both contemporaneously and over the longer-term.

XVII. The measurement of psychiatric symptomatology

295. The use of standardized assessments is important in psychiatry, in providing a structured and uniformed method of assessing psychopathology in diverse populations. In some instances, standardized assessments may take the form of structured or semi-structured interviews administered by trained mental health practitioners, and in some instances, may take the form of self-report questionnaires to assess specific symptom domains.

296. The use of empirically validated instruments is important in ensuring that assessments are valid and reliable indices of symptomatology, and moreover, they may provide context for the interpretation of individual patient scores. The measures discussed below represent a combination of structured clinical interviews and self-report measures which I would use in routine clinical practice, which I would consider to be empirically supported and gold standard assessment methods.

The measurement of historical psychopathology Α.

297. In mental health care, many diagnoses and treatment planning-related decisions are predicated on patient recall and self-reporting of historical and contemporaneous clinical symptoms. For instance, when a patient with major depression sees their doctor 6-8 weeks after receiving a new medication, the patient's recall of symptomatology and side effects over the previous two months will determine future treatment planning.

298. Similarly, when first assessing a patient with possible major depressive disorder, patient recall of the volume, frequency and duration of historical depressive episodes is critical in informing the diagnoses and treatment plan. As such, all formulations of psychiatric illness are predicated on patient recall and reporting of current and historical clinical symptoms, and the assessment of historical psychopathology is usually undertaken via (i) clinical interview, (ii) a review of historical medical records, and (iii) interviews with family members.

299. However, in clinical practice it is not uncommon to administer self-reported symptoms measures to objectively measure patient and family member's retrospective accounts of symptomatology. The majority of the measures of psychiatric symptomatology are designed to index either contemporaneous or recent symptom severity, and retrospective measure administration may be vulnerable to recall bias and therefore cannot be used to determine retrospective diagnostic status.

300. As such, it is important that the assessment of historical psychiatric symptomatology not rely solely on retrospective measure administration, but include clinical assessment, a review of historical health records, and interview with family members and witnesses, to inform a comprehensive assessment of historical symptomatology.

B. The measurement of general psychopathology

301. The Mini International Neuropsychiatric Interview: The Mini International Neuropsychiatric Interview (MINI) is a structured, clinician administered diagnostic interview for a wide range of mental disorders, anchored into DSM-5 and ICD-11 diagnostic criteria for a range of psychiatric and neurodevelopmental disorders.³³⁰ The MINI is widely considered to be a valid and reliable assessment tool, suitable for guiding diagnostic practice in research and clinical

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³³⁰ Sheehan, D., Lecrubier, Y., Harnett Sheehan, K., Janavs, J., Weiller, E., Keskiner, A., Schinka, J., Knapp, E., Sheehan, M., & Dunbar, G. (1997). The validity of the Mini International Neuropsychiatric Interview (MINI) according to the SCID-P and its reliability. European Psychiatry, 12(5), 232–241. https://doi.org/10.1016/s0924-9338(97)83297-x

settings, which has been translated into over 70 languages.³³¹ The general format of the MINI includes a series of probe questions for each diagnostic category, followed by a series of comprehensive assessment questions which are expanded upon to ensure full diagnostic criteria are met. The MINI reliably demonstrates strong psychometric properties in a range of clinical settings.³³²

302. *Mini International Neuropsychiatric Interview for Children and Adolescents:* The Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID) is an adapted version of the MINI, designed for children and adolescents aged 6-17 years of age. The

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³³¹ A Detailed Guide to the Mini International Neuropsychiatric Interview. (2018). Proemhealth.com. https://www.proemhealth.com/mini-international-neuropsychiatric-interviewguide

³³² Palma-Álvarez, R. F., Barta, C., Carpentier, P. J., Carruthers, S., Crunelle, C. L., Demetrovics, Z., Dom, G., Faraone, S. V., Franck, J., Johnson, B., Kapitány-Fövény, M., Kaye, S., Konstenius, M., Matthys, F., Moggi, F., Møller, M., Schellekens, A., Skutle, A., van de Glind, G., & van Emmerik-van Oortmerssen, K. (2020). Validity of the ADHD module of the Mini International Neuropsychiatric Interview PLUS for screening of adult ADHD in treatment seeking substance use disorder patients: ADHD screening with MINI-Plus. Revista de Psiquiatría Y Salud Mental. https://doi.org/10.1016/j.rpsm.2020.04.013; Sheehan, D., Lecrubier, Y., Harnett Sheehan, K., Janavs, J., Weiller, E., Keskiner, A., Schinka, J., Knapp, E., Sheehan, M., & Dunbar, G. (1997). The validity of the Mini International Neuropsychiatric Interview (MINI) according to the SCID-P and its reliability. European Psychiatry, 12(5), 232–241. https://doi.org/10.1016/s0924-9338(97)83297-x; Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., Hergueta, T., Baker, R., & Dunbar, G. C. (1998). The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. The Journal of Clinical Psychiatry, 59 Suppl 20, 22–33;quiz 34-57. https://pubmed.ncbi.nlm.nih.gov/9881538/; Korte, K. J., Jaguga, F., Kim, H. H., Stroud, R. E., Stevenson, A., Dickens Akena, Lukoye Atwoli, Gichuru, S., James, R., Kwobah, E., Kariuki, S. M., Kyebuzibwa, J., Mwema, R. M., Charles, Zukiswa Zingela, Stein, D. J., Alemayehu, M., Teferra, S., Koenen, K. C., & Bizu Gelaye. (2023). Psychometric Properties of the Mini International Neuropsychiatric Interview (MINI) Psychosis Module: A Sub-Saharan Africa Cross Country Comparison. Psychological Medicine, 53(15), 7042-7052. https://doi.org/10.1017/s0033291723000296; Pettersson, A., Modin, S., Wahlström, R., af Winklerfelt Hammarberg, S., & Krakau, I. (2018). The Mini-International Neuropsychiatric Interview is useful and well accepted as part of the clinical assessment for depression and anxiety primary mixed-methods study. **BMC** Family Practice, care: a 19(1). https://doi.org/10.1186/s12875-017-0674-5.

MINI-KID differs from the MINI in that (i) it adopts more child sensitive language throughout, (ii) it focusses on assessing school, peer and family contexts as opposed to work, relationship and adult roles, and (ii) it includes childhood onset psychiatric disorders such as ADHD and oppositional defiant disorder. Notwithstanding, the MINI-KID retains the same general structure and principles as the MINI, and demonstrates strong psychometric properties.³³³

C. The measurement of eating disorder psychopathology

Eating Disorder Examination: The eating disorder examination (EDE) is widely 303. accepted as the gold standard instrument to measure and index eating disorder psychopathology in clinical practice and in clinical research studies.³³⁴ The EDE is a semi-structured, clinicianadministered interview assessment of a transdiagnostic array of eating disorder symptomatology, indexing (i) the core behavioral eating disorder features such as dietary restraint, binge eating, purging, (ii) the core cognitive eating disorder features such as overvaluation of shape and weight, and (iii) the frequency and severity of symptoms.

Overall, the EDE yields subscale scores relating to (i) Dietary Restraint – relating 304. to attempts to restrict or cut back to modify one's shape or weight, (ii) Eating Concerns – relating

³³³ Sheehan, D. V., Sheehan, K. H., Shytle, R. D., Janavs, J., Bannon, Y., Rogers, J. E., Milo, K. M., Stock, S. L., & Wilkinson, B. (2010). Reliability and Validity of the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID). The Journal of Clinical Psychiatry, 71(03), 313–326. https://doi.org/10.4088/jcp.09m05305whi; Duncan, L., Georgiades, K., Wang, L., Van Lieshout, R. J., MacMillan, H. L., Ferro, M. A., Lipman, E. L., Szatmari, P., Bennett, K., Kata, A., Janus, M., & Boyle, M. H. (2018). Psychometric evaluation of the Mini for International Neuropsychiatric Interview Children and Adolescents KID). Psychological Assessment, 30(7), 916–928. https://doi.org/10.1037/pas0000541; Högberg, C., Billstedt, E., Björck, C., Björck, P.-O., Ehlers, S., Gustle, L.-H., Hellner, C., Höök, H., Serlachius, E., Svensson, M. A., & Larsson, J.-O. (2019). Diagnostic validity of the MINI-KID disorder classifications in specialized child and adolescent psychiatric outpatient clinics in Sweden. BMC Psychiatry, 19(1). https://doi.org/10.1186/s12888-019-2121-8

³³⁴ Fairburn CG, Cooper Z, O'Connor M. (2008). Eating Disorder Examination (16.0D). In Fairburn CG. Cognitive Behavior Therapy and Eating Disorders. New York: Guilford Press.

to guilt and anxiety about eating, (iii) Shape Concern – relating to body dissatisfaction and overvaluation of body shape, and (iv) Weight Concern – relating to preoccupation with weight, and the fear of weight gain. The EDE demonstrates strong psychometric properties, ³³⁵ and has been used as a primary outcome measure in the majority of randomized controlled trials in the eating disorders among both adolescents and adults. ³³⁶

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³³⁵ Berg, K. C., Peterson, C. B., Frazier, P., & Crow, S. J. (2012). Psychometric evaluation of the eating disorder examination and eating disorder examination-questionnaire: A systematic review of the literature. International Journal of Eating Disorders, 45(3), 428-438. https://doi.org/10.1002/eat.20931; Cooper, Z., Fairburn, C. (1987). The eating disorder examination: A semi-structured interview for the assessment of the specific psychopathology of eating disorders. International Journal of Eating Disorders, 6(1), 1-8. https://doi.org/10.1002/1098-108X(198701)6:1<1::AID-EAT2260060102>3.0.CO;2-9; Berg, K. C., Peterson, C. B., Frazier, P., & Crow, S. J. (2011). Convergence of scores on the interview and questionnaire versions of the Eating Disorder Examination: A meta-analytic review. Psychological Assessment, 23(3), 714-724. https://doi.org/10.1037/a0023246

³³⁶ Dalle Grave, R., Calugi, S., Conti, M., Doll, H., & Fairburn, C. G. (2013). Inpatient Cognitive Behaviour Therapy for Anorexia Nervosa: A Randomized Controlled Trial. Psychotherapy and Psychosomatics, 82(6), 390–398. https://doi.org/10.1159/000350058; Le Grange, D., Hughes, E. K., Court, A., Yeo, M., Crosby, R. D., & Sawyer, S. M. (2016). Randomized Clinical Trial of Parent-Focused Treatment and Family-Based Treatment for Adolescent Nervosa. Journal of the American Academy of Child & Adolescent Psychiatry, 55(8), 683-692. https://doi.org/10.1016/j.jaac.2016.05.007; le Grange, D., Crosby, R. D., Rathouz, P. J., & Leventhal, B. L. (2007). A Randomized Controlled Comparison of Family-Based Treatment and Psychotherapy Adolescent Bulimia Nervosa. Archives Supportive for Psychiatry, 64(9), 1049. https://doi.org/10.1001/archpsyc.64.9.1049; Le Grange, D., Lock, J., Agras, W. S., Bryson, S. W., & Jo, B. (2015). Randomized Clinical Trial of Family-Based Treatment and Cognitive-Behavioral Therapy for Adolescent Bulimia Nervosa. Journal of the Academy Adolescent Psychiatry, 54(11), American of Child & https://doi.org/10.1016/j.jaac.2015.08.008; Le Grange, D., Lock, J., Accurso, E. C., Agras, W. S., Darcy, A., Forsberg, S., & Bryson, S. W. (2014). Relapse From Remission at Two- to Four-Year Follow-Up in Two Treatments for Adolescent Anorexia Nervosa. Journal of the American Psychiatry, 53(11), Academy 1162-1167. of Child & Adolescent https://doi.org/10.1016/j.jaac.2014.07.014; Lock, J., Couturier, J., Matheson, B. E., Datta, N., Citron, K., Sami, S., Welch, H., Webb, C., Doxtdator, K., & John-Carson, N. (2021). Feasibility of conducting a randomized controlled trial comparing family-based treatment via videoconferencing and online guided self-help family-based treatment for adolescent anorexia nervosa. International Journal of Eating Disorders, 54(11). https://doi.org/10.1002/eat.23611; Lock J, Le Grange D, Agras WS, Moye A, Bryson SW, Jo B. Randomized Clinical Trial Comparing Family-Based Treatment With Adolescent-Focused Individual Therapy for

305. The Eating Disorder Examination – Questionnaire: The Eating Disorder Examination – Questionnaire (EDE-Q) is a self-reported version of the EDE, which retains the same core structure as the EDE.³³⁷ The EDE-Q demonstrates strong psychometric properties, ³³⁸ and has been normed and validated in a broad array of clinical and non-clinical populations.³³⁹ To date, the EDE-Q is the most widely used measure of eating disorder psychopathology in clinical research studies, and has been used broadly to index clinical symptom severity and inform clinical diagnoses among both adolescents and adults.

306. *The Binge Eating Scale*: The Binge Eating Scale (BES) is a self-report measure of binge eating symptomatology, ³⁴⁰ which indexes the behavioral and emotional components of binge

Adolescents With Anorexia Nervosa. Arch Gen Psychiatry. 2010;67(10):1025–1032. doi:10.1001/archgenpsychiatry.2010.128.

³³⁷ Fairburn, C. G., & Beglin, S. J. (1994). Assessment of eating disorders: Interview or self-report questionnaire?. International journal of eating disorders, 16(4), 363-370.

³³⁸ Carey, M., Kupeli, N., Knight, R., Troop, N. A., Jenkinson, P. M., & Preston, C. (2019). Eating Disorder Examination Questionnaire (EDE-Q): Norms and psychometric properties in UK females and males. Psychological Assessment, 31(7), 839; Mond, J. M., Hay, P. J., Rodgers, B., Owen, C., & Beumont, P. J. V. (2004). Validity of the Eating Disorder Examination Questionnaire (EDE-Q) in screening for eating disorders in community samples. Behaviour research and therapy, 42(5), 551-567.

Nagata, J. M., Murray, S. B., Compte, E. J., Pak, E. H., Schauer, R., Flentje, A., ... & Obedin-Maliver, J. (2020). Community norms for the Eating Disorder Examination Questionnaire (EDE-Q) among transgender men and women. Eating behaviors, 37, 101381; Carter, J. C., Stewart, D. A., & Fairburn, C. G. (2001). Eating disorder examination questionnaire: norms for young adolescent girls. Behaviour research and therapy, 39(5), 625-632; Jennings, K. M., & Phillips, K. E. (2017). Eating disorder examination—questionnaire (EDE-Q): norms for clinical sample of female adolescents with anorexia nervosa. Archives of psychiatric nursing, 31(6), 578-581; Lavender, J. M., De Young, K. P., & Anderson, D. A. (2010). Eating Disorder Examination Questionnaire (EDE-Q): norms for undergraduate men. Eating Behaviours, 11(2), 119-121; Luce, K. H., Crowther, J. H., & Pole, M. (2008). Eating disorder examination questionnaire (EDE-Q): Norms for undergraduate women. International Journal of Eating Disorders, 41(3), 273-276.

³⁴⁰ Gormally J, Black S, Daston S, Rardin D. The assessment of binge eating severity among obese persons. Addict Behav. 1982;7(1):47–55.

eating – including the frequency of binge episodes, the associated loss of control over eating, the severity of associated guilt or shame, and the magnitude of the impact on functioning.³⁴¹

307. The BES in itself is not a diagnostic tool, but is a consistently reliable indicator of binge eating symptomatology which has been broadly utilized in empirical research and clinical practice. The BES demonstrates strong psychometric properties across a range of populations.³⁴² Greater scores on the BES indicate greater eating disorder psychopathology, and has been demonstrated to be a valid screening tool for clinically significant binge eating.³⁴³ The BES has been broadly used to screen binge eating psychopathology in adolescents and adults alike.³⁴⁴

D. The measurement of body dysmorphic disorder psychopathology

308. Body Dysmorphic Disorder Questionnaire: The Body Dysmorphic Disorder Questionnaire (BDDQ) is a self-report measure which is designed to identify individuals at risk

³⁴¹ Gormally J, Black S, Daston S, Rardin D. The assessment of binge eating severity among obese persons. Addict Behav. 1982;7(1):47-55.

³⁴² Yan, H.-Y., Lin, F.-G., Tseng, M.-C. M., Fang, Y.-L., & Lin, H.-R. (2023). The psychometric properties of Binge Eating Scale among overweight college students in Taiwan. Journal of Eating Disorders, 11(1). https://doi.org/10.1186/s40337-023-00774-3; Burton, A. L., Abbott, M. J., Modini, M., & Touyz, S. (2015). Psychometric evaluation of self-report measures of binge-eating symptoms and related psychopathology: A systematic review of the literature. International Journal of Eating Disorders, 49(2), 123–140. https://doi.org/10.1002/eat.22453

³⁴³ Duarte, C., Pinto-Gouveia, J., & Ferreira, C. (2015). Expanding binge eating assessment: Validity and screening value of the Binge Eating Scale in women from the general population. Eating Behaviors, 18, 41–47. https://doi.org/10.1016/j.eatbeh.2015.03.007

³⁴⁴ Mina, A., Hallit, S., Rogoza, R., Obeid, S., & Soufia, M. (2021). Binge eating behavior in a sample of Lebanese Adolescents: Correlates and Binge Eating Scale validation. Journal of Eating Disorders, 9(1). https://doi.org/10.1186/s40337-021-00493-7; Isnard, P., Michel, G., Frelut, M.-L., Vila, G., Falissard, B., Naja, W., Navarro, J., & Mouren-Simeoni, M.-C. (2003). Binge eating and psychopathology in severely obese adolescents. International Journal of Eating Disorders, 34(2), 235–243. https://doi.org/10.1002/eat.10178; Yan, W.-S., Liu, S.-J., & Liu, M.-M. (2024). Validation and Psychometric Properties of the Chinese Version of the Binge Eating Scale in Young Adults. Psychology Research and Behavior Management, Volume 17, 1611–1624. https://doi.org/10.2147/prbm.s456275; Escobar, M., Franzosi, Oellen Stuani, Coelho, N., Halpern, S. C., Scherer, J. N., Ornell, F., Maria, K., & Rocha, (2021). Instruments for binge eating assessment in adults: a systematic review. Ufrgs.br. https://doi.org/2357-7894

for body dysmorphic disorder (BDD), which indexes key areas of BDD psychopathology including appearance preoccupation, distress or impairment relating to one's appearance concerns, time spent thinking about one's perceived flaws in appearance, and the impact upon one's functioning.345

The BDDQ in itself is not a diagnostic tool, but is a consistently reliable indicator 309. of binge eating symptomatology which has been broadly utilized in empirical research and clinical practice. The BDDQ does not offer scale scores, but leverages a skip logic approach to assess each diagnostic criterion for BDD, thereby identifying individuals with probable BDD. The BDDQ has demonstrated 100% sensitivity and 93% specificity in identifying BDD patients, compared to structured clinical interviews.³⁴⁶ The BDDQ has been broadly used to screen binge eating psychopathology in adolescents and young adults alike, demonstrating strong psychometric properties.³⁴⁷

³⁴⁵Phillips, K.A., 2009. Understanding Body Dysmorphic Disorder: An Essential Guide. Oxford University Press, Oxford

³⁴⁶ Phillips, K. A. (1995). Body dysmorphic disorder: A review of the literature and new diagnostic questions. Harvard Review of Psychiatry, 3(4), 123–132.

³⁴⁷ Schneider, S. C., Turner, C. M., Mond, J., & Hudson, J. L. (2016). Prevalence and correlates of body dysmorphic disorder in a community sample of adolescents. Australian & New Zealand Journal of Psychiatry, 51(6), 595-603. https://doi.org/10.1177/0004867416665483; Möllmann, A., Dietel, F. A., Hunger, A., & Buhlmann, U. (2017). Prevalence of body dysmorphic disorder and associated features in German adolescents: A self-report survey. Psychiatry Research, 254, 263–267. https://doi.org/10.1016/j.psychres.2017.04.063; Enander, J., Ivanov, V. Z., Mataix-Cols, D., Kuja-Halkola, R., Ljótsson, B., Lundström, S., Pérez-Vigil, A., Monzani, B., Lichtenstein, P., & Rück, C. (2018). Prevalence and heritability of body dysmorphic symptoms in adolescents and young adults: a population-based nationwide twin study. Psychological Medicine, 48(16), 2740– 2747. https://doi.org/10.1017/s0033291718000375; Schneider, S. C., Turner, C. M., Mond, J., & Hudson, J. L. (2016). Prevalence and correlates of body dysmorphic disorder in a community sample of adolescents. Australian & New Zealand Journal of Psychiatry, 51(6), 595-603. https://doi.org/10.1177/0004867416665483.

E. The measurement of depression and anxiety

310. Depression Anxiety and Stress Scale: The Depression Anxiety and Stress Scale (DASS) is a widely used self-reported measure of (i) depression – including low mood, loss of motivation and interest, (ii) anxiety – including physiological activation and fear responses, and (iii) stress – including persistent tension and irritability.³⁴⁸ The DASS is not a diagnostic instrument, but is intended to measure symptom severity in each of these three core domains. The DASS comes in two forms, a long form (42 items) and a short form (21 items) – both of which demonstrate consistently strong psychometric properties and have been used widely in adults and adolescents to index symptom severity in a range of cultural and clinical contexts.³⁴⁹

311. Patient Health Questionnaire-9: The Patient Health Questionnaire – 9 (PHQ-9) is a widely used 9-item self-reported measure designed to assess and screen for depression.³⁵⁰ The 9 items each correspond to the DSM diagnostic criteria for major depressive disorder (e.g. feeling depressed or hopeless, fatigue, loss of interest in things), and measure the presence and frequency

³⁴⁸ Lovibond, S.H., & Lovibond, P.F. (1995). Manual for the Depression Anxiety Stress Scales (2nd ed.). Sydney: Psychology Foundation of Australia.

Mellor, D., Vinet, E. V., Xu, X., Hidayah Bt Mamat, N., Richardson, B., & Román, F. (2015). Factorial Invariance of the DASS-21 Among Adolescents in Four Countries. European Journal of Psychological Assessment, 31(2), 138–142. https://doi.org/10.1027/1015-5759/a000218; Shaw, T., Campbell, M. A., Runions, K. C., & Zubrick, S. R. (2016). Properties of the DASS-21 in an Australian Community Adolescent Population. Journal of Clinical Psychology, 73(7), 879–892. https://doi.org/10.1002/jclp.22376; Le, M. T. H., Tran, T. D., Holton, S., Nguyen, H. T., Wolfe, R., & Fisher, J. (2017). Reliability, convergent validity and factor structure of the DASS-21 in a sample of Vietnamese adolescents. PLoS ONE, 12(7). https://doi.org/10.1371/journal.pone.0180557; Dwight, A. R., Briesch, A. M., Hoffman, J. A., & Rutt, C. (2024). Systematic Review of the Psychometric Evidence Supporting Use of the Depression Anxiety Stress Scales, Short Form (DASS-21) with Youth. Child & Youth Care Forum, 53. https://doi.org/10.1007/s10566-024-09795-8

³⁵⁰ Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a Brief Depression Severity Measure. Journal of General Internal Medicine, 16(9), 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x

of these phenomena over the previous two weeks. The PHQ-9 is not a diagnostic instrument, but serves in most settings as a reliable screening instrument for the possible presence of depression. Global scores range for 0-27, with higher scores indicating greater depressive symptomatology. The PHQ-9 has been used extensively in clinical practice and in research settings across a range of cultural contexts, in both adolescents and adults, demonstrating strong psychometric properties.³⁵¹

312. Screen for Child Anxiety Related Emotional Disorders: The Screen for Child Anxiety Related Emotional Disorders (SCARED) is a 41-item self-report measure of anxiety

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³⁵¹ Fonseca-Pedrero, E., Díez-Gómez, A., Pérez-Albéniz, A., Al-Halabí, S., Lucas-Molina, B., & Debbané, M. (2023). Youth screening depression: Validation of the Patient Health Questionnaire-9 (PHQ-9) in a representative sample of adolescents. Psychiatry Research, 328(328), 115486. https://doi.org/10.1016/j.psychres.2023.115486; Richardson, L. P., McCauley, E., Grossman, D. C., McCarty, C. A., Richards, J., Russo, J. E., Rockhill, C., & Katon, W. (2010). Evaluation of the Patient Health Questionnaire-9 Item for Detecting Major Depression Adolescents. PEDIATRICS, 126(6), 1117–1123. https://doi.org/10.1542/peds.2010-0852; Leung, D. Y. P., Mak, Y. W., Leung, S. F., Chiang, V. C. L., & Loke, A. Y. (2020). Measurement invariances of the PHQ-9 across gender and age groups in Chinese adolescents. Asia-Pacific Psychiatry, 12(3). https://doi.org/10.1111/appy.12381; Leung, D. Y. P., Mak, Y. W., Leung, S. F., Chiang, V. C. L., & Loke, A. Y. (2020). Measurement invariances of the PHQ-9 across gender and groups Chinese adolescents. Asia-Pacific Psychiatry, 12(3). https://doi.org/10.1111/appy.12381; Borghero, F., Martínez, V., Zitko, P., Vöhringer, P. A., Cavada, G., Rojas, G., Borghero, F., Martínez, V., Zitko, P., Vöhringer, P. A., Cavada, G., & Rojas, G. (2018). Tamizaje de episodio depresivo en adolescentes. Validación del instrumento PHO-9. Revista Médica de Chile, 146(4), 479–486. https://doi.org/10.4067/s0034-98872018000400479; Titov, N., Dear, B. F., McMillan, D., Anderson, T., Zou, J., & Sunderland, M. (2011). Psychometric Comparison of the PHQ-9 and BDI-II for Measuring Response during Depression. Cognitive Behaviour Treatment Therapy, 40(2), 126–136. of https://doi.org/10.1080/16506073.2010.550059; Beard, C., Hsu, K. J., Rifkin, L. S., Busch, A. B., & Björgvinsson, T. (2016). Validation of the PHQ-9 in a psychiatric sample. Journal of Affective Disorders, 193(193), 267–273. https://doi.org/10.1016/j.jad.2015.12.075; Arnold, S. R. C., Uljarević, M., Hwang, Y. I., Richdale, A. L., Trollor, J. N., & Lawson, L. P. (2019). Brief Report: Psychometric Properties of the Patient Health Questionaire-9 (PHQ-9) in Autistic Adults. Journal of Autism and Developmental Disorders, 50(6), 2217–2225. https://doi.org/10.1007/s10803-019-03947-9

cultural contexts.354

symptoms in children and adolescents.³⁵² Specifically, the SCARED is intended to screen for a range of DSM anxiety disorders, including generalized anxiety, panic symptoms, social anxiety, specific phobia, separation anxiety and more. 353 While the SCARED is not a diagnostic instrument, it has been widely used as a reliable screener to identify individuals who demonstrate significant anxiety-related symptomatology, and would warrant further evaluation. The SCARED has demonstrated strong psychometric properties in research and clinical settings across a range of

F. The measurement of problematic social media use

313. Social Media Disorder Scale: The Social Media Disorder Scale (SMDS) is a 9-item scale which was designed to index addiction to social media. ³⁵⁵ The 9 items are designed to parallel the DSM criteria for internet gaming disorder, but are oriented specifically towards social media instead of internet gaming addiction, and relate to dimensions of addictive behaviors including

³⁵² Birmaher B, Khetarpal S, Brent D, Cully M, Balach L, Kaufman J et al. (1997) The screen for child anxiety related emotional disorders (SCARED): scale construction and psychometric characteristics. J Am Acad Child Adolesc Psychiatry 36:545-553

³⁵³ Birmaher B, Khetarpal S, Brent D, Cully M, Balach L, Kaufman J et al. (1997) The screen for child anxiety related emotional disorders (SCARED): scale construction and psychometric characteristics. J Am Acad Child Adolesc Psychiatry 36:545-553

³⁵⁴ Birmaher, B., Brent, D. A., Chiappetta, L., Bridge, J., Monga, S., & Baugher, M. (1999). Psychometric Properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED): A Replication Study. Journal of the American Academy of Child & Adolescent Psychiatry, 38(10), 1230–1236. https://doi.org/10.1097/00004583-199910000-00011; Arab, A., El Keshky, M., & Hadwin, J. A. (2015). Psychometric Properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED) in a Non-Clinical Sample of Children and Adolescents in Saudi Arabia. Child **Psychiatry** Human Development, 47(4), & https://doi.org/10.1007/s10578-015-0589-0; Birmaher, B., Khetarpal, S., Brent, D., Cully, M., Balach, L., Kaufman, J., & Neer, S. M. (1997). The Screen for Child Anxiety Related Emotional Disorders (SCARED): Scale Construction and Psychometric Characteristics. Journal of the Academy Adolescent American of Child & Psychiatry, 36(4), 545-553. https://doi.org/10.1097/00004583-199704000-00018;

³⁵⁵ Van den Erinden, RJ.J.M., Lemmons, J.S., & Valkensburg P.M. (2016). The Social Media Disorder Scale. Computers in Human Behavior, 61, 478-487.

preoccupation, tolerance, escape, persistence, withdrawal, deception, conflict, and interference with functioning.³⁵⁶

314. The SMDS is not a diagnostic instrument, but serves as a screening tool for problematic social media use, offering 9 screening questions – which cumulatively result in a global score. The SMDS has been widely used in research and clinical practice across a range of settings, and demonstrates strong psychometric properties in adolescents and adults alike.³⁵⁷ For instance, in a sample of over 220,000 participants from over 44 countries, the SMDS demonstrated good internal consistency and is "suitable for measuring and comparing problematic social media use among young adolescents across many national contexts."³⁵⁸

XVIII. A review of internal Defendant documents recognizes the connection between social media use and design features and increased risk for eating disorders, body dysmorphia, anxiety, depression, suicidality/self-harm, and insomnia.

315. As discussed above, appearance filters and features that promote social comparison are mechanisms by which social media use can contribute to the development of anxiety, depression, body dysmorphia, and eating disorders.

³⁵⁶ Van den Erjnden, RJ.J.M., Lemmons, J.S., & Valkensburg P.M. (2016). The Social Media Disorder Scale. Computers in Human Behavior, 61, 478-487.

Boer, M., Eijnden, R. J. J. M., Finkenauer, C., Boniel-Nissim, M., Marino, C., Inchley, J., Cosma, A., Paakkari, L., & Stevens, G. W. J. M. (2021). Cross-national validation of the social media disorder scale: findings from adolescents from 44 countries. Addiction, 117(3). https://doi.org/10.1111/add.15709; Fung, S. (2019). Cross-cultural validation of the Social Media Disorder scale. Psychology Research and Behavior Management, Volume 12, 683–690. https://doi.org/10.2147/prbm.s216788; Boer, M., Stevens, G. W. J. M., Finkenauer, C., Koning, I. M., & van den Eijnden, R. J. J. M. (2021). Validation of the Social Media Disorder Scale in Adolescents: Findings From a Large-Scale Nationally Representative Sample. Assessment, 29(8), 107319112110272. https://doi.org/10.1177/10731911211027232.

³⁵⁸ Boer, M., Eijnden, R. J. J. M., Finkenauer, C., Boniel-Nissim, M., Marino, C., Inchley, J., Cosma, A., Paakkari, L., & Stevens, G. W. J. M. (2021). Cross-national validation of the social media disorder scale: findings from adolescents from 44 countries. Addiction, 117(3). https://doi.org/10.1111/add.15709

(see section XV. above). As part of my review, numerous defendant documents were made available to me. Below I will walk through each Defendant, noting that their own internal documents recognize the links between their product's design and problematic usage and subsequent development of eating disorders, body dysmorphia, and other mental health injuries.

Α. **META**

- Meta Platforms, Inc ("Meta"), formerly known as Facebook, Inc., was formed by 316. Mark Zuckerberg in 2004. By the end of 2005, Facebook had expanded its reach to thousands of colleges and high schools in the United States and abroad. Over the coming years, Facebook grew well beyond campuses, reaching over 100 million total active users by the fall of 2008. In 2012, Facebook reached two more milestones; first by purchasing Instagram, LLC in April and second going public on the New York Stock Exchange the following month. Since then, Meta continued to grow rapidly by targeting under-13 children with the launch of Messenger Kids—a version of its Messenger platform with additional controls that let parents control their child's profile. In October 2021, the company rebranded to "Meta Platforms" bringing Facebook, Instagram, Messenger, and Messenger Kids under a single brand.
- 317. These platforms consist of a number of features that Meta either pioneered, such as the "Like" button, or adopted from other platforms, such as Stories or Reels. Stories mirrors a similar feature on Snapchat and was introduced on the Instagram platform in August 2016. Reels was launched in August 2020 to counter the popularity of Meta's newest competitor, TikTok. The platforms also contain other features that have been linked to negative mental health impacts in children such as Augmented Reality ("AR") filters, endless scroll, auto-play, algorithmic aggregation, and notifications.
- A review of Meta's internal documents and deposition testimony of employees also 318. reflects this causative connection. For example, as early as 2018, Meta commissioned a literature

review to study the effects of selfie manipulations on adolescents.³⁵⁹ This literature review concluded that "findings to date suggest [selfie manipulation] exacerbates risk and maintenance of several mental health concerns including body dissatisfaction, eating disorders and body dysmorphic disorder cross-culturally."³⁶⁰ Meta did not disclose this research to the public.³⁶¹

319. Studies have shown that cosmetic surgery filters can be particularly harmful for adolescents (as discussed above). In response to public outcry, Meta temporarily banned cosmetic surgery filters in 2019.362 Internally, Meta's Vice President of Product Safety and Responsible Innovation stated that "it seems patently obvious that phone usage, selfie-culture, and photo editing are contributing to anxiety, depression, and body dysmorphia."363

Meta continued to conduct internal research on the potential harms caused by 320. appearance filters. Meta engaged 18 experts (psychologists, researchers, body image activists, and AR professionals), and a large majority "recommended prohibiting these filters, citing known impacts of media imagery that idealizes unrealistic beauty standards on peoples' [sic] body image and mental health."364 Stakeholders warned that "extreme beauty effects can have severe impacts on both the individuals using the effects and those viewing the images."365 A summary of this research concluded that "A number of studies show that the increasing use of photo filters on social media may lead to mental health issues, unrealistic beauty standards, and possibly has an

³⁵⁹ Ex. 9 - META3047MDL-040-00593105

³⁶⁰ Ex. 11 at 1 - META3047MDL-014-00376297 at 6297

Tr. 155

Ex. 7 at 1 - META3047MDL-003-00179247 at 9247

³⁶³ META3047MDL-014-00360058

Ex. 13 - META3047MDL-019-00101105

³⁶⁵ Jaykaumar Tr. 158; Jayakumar Ex. 16 – META3047MDL-040-00337135

association with a rise in plastic surgery. . . . Women and teenage girls are particularly vulnerable to the negative impacts of beauty filters on body dysmorphic disorder."³⁶⁶

321. In deposition, Mr. Arturo Bejar – who worked for Meta in the area of online safety and security between 2009-2015, and subsequently from 2019-2021 – made a series of disclosures which allude to the knowledge Meta had around the potential impacts of their social media platform. For example, Mr. Bejar testified that Instagram's wellbeing team was aware that use of Instagram could lead to body image issues. ³⁶⁷ In discussing the magnitude of this harms and their impact upon Instagram users. Mr. Bejar testified: "Yes, it would be millions of people. As I said, if it happens to one or two people, it's happening to a million people." ³⁶⁸ With specific regards to the mechanisms by which Instagram exacerbates eating disorder risk, Mr. Bejar noted "So in talking to people who have lived experience with eating disorders, I learned that the kind of content they get recommended are things like recipes, lose weight fad, body image issues that are profoundly distressing to them." ³⁶⁹ This targeted exposure - along with the engaging nature of social media that keeps teenagers on the platform - among those with eating disorders is consistent with what has been reported in the peer reviewed literature with regard to other social media platforms (discussed above).

322. Despite the consensus in both external and internal literature that appearance filters were causing harm to adolescents, Meta lifted its ban and offered these filters to all users.³⁷⁰ This

Ex. 13 - META3047MDL-019-00101105

³⁶⁷ Bejar Tr. 268

³⁶⁸ Bejar Tr. 127

³⁶⁹ Bejar Tr. 178

³⁷⁰ Stewart Tr. at 54

decision was made at a very senior level.³⁷¹ Meta made this decision even though not only outside researchers but its own documents reflect that removing the appearance filters would negatively impact competitiveness and growth. 372 Moreover, Meta lifted the ban over the protest of a veteran employee, Margaret Gould Stewart, who then served as Meta's vice president of product design and responsible innovation.³⁷³ Ms. Stewart wrote directly to Mr. Zuckerberg opposing the reversal and calling for at least a "moderately protective stance here given the risks to minors," citing among other things her own personal experience "as a parent of two teenage girls – one of whom has been hospitalized twice for body dysmorphia". 374 Mr. Zuckerberg did not change the decision and indeed did not even respond to Ms. Stewart's email.³⁷⁵ As one former well-being executive commented at her deposition, the decision was made because the "filters are incredibly popular" and the ban "would have felt like a competitive loss in contrast to" Snapchat and TikTok; however "from a safety and well-being perspective, I didn't think that this was the right approach to take." 376

Meta's internal documents reflect a consistent pattern of conducting internal 323. research that establishes that beauty filters are harmful for children and adolescents and then failing to take action to remove these from underage users.³⁷⁷

Beauty filters are not the only mechanism by which Meta's platforms contribute to 324. body dysmorphia and eating disorders. The platform's intentional inclusion of public-facing

³⁷¹ Jayakumar Tr. 161-162

Ex. 18 at 2 - META3047MDL-050-00003832 at 3833

³⁷³ Stewart Tr. at 27

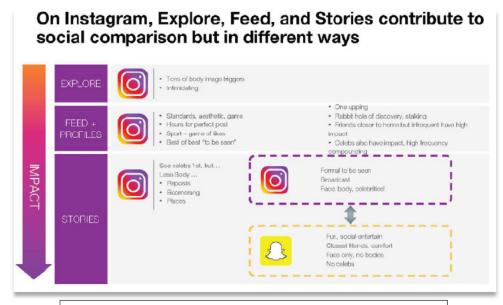
³⁷⁴ Stewart Tr. at 57; Stewart Ex. 8; Zuckerberg Rough Tr. 267

³⁷⁵ Stewart Tr. At 60; Zuckerberg Tr. 270-271

³⁷⁶ Jayakumar Tr. 164-165

Ex. 15 at 1, 4, 5, 9, 10 - META3047MDL-020-00609932 and Ex. 55 at 1 -META3047MDL-003-00183798 at 3798

metrics – which include the like button, followers, and public display of metrics – also results in social comparison among users.³⁷⁸ An internal Meta presentation illustrates the mechanism between various features and an increase in social comparison in users³⁷⁹:



Bates Number: META3047MDL-003-00001846 at 1875

- 325. As with beauty filters, Meta leadership was informed of research drawing a connection between a visible tally of likes and negative social comparison.³⁸⁰ However, despite announcing a feature change to address this problem in 2019, Meta leadership again back-tracked and launched a version that "did not address the core issue of negative social comparison that the original version of the product was trying to target."381
- It's well-recognized in the academic literature that increasing social comparison 326. can lead to an increase in mental health harms. Meta's internal studies are consistent with these

³⁷⁸ Jayakumar Tr. 166; Cheng Tr. 43

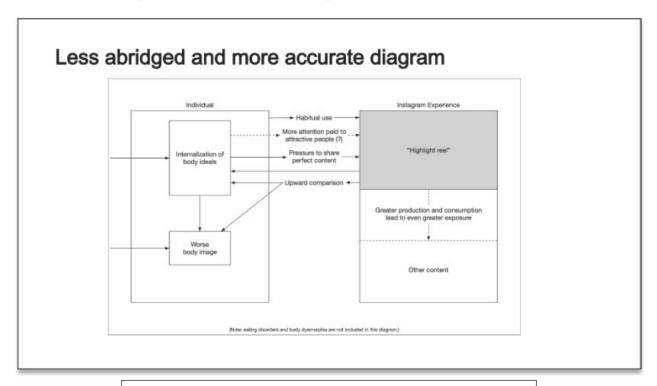
³⁷⁹ META3047MDL-003-00001846 at 1875

³⁸⁰ Jayakumar Tr. 166-167 ("Researchers have put together a really compelling package of information based on their interviews and user research suggesting that ... likes might be one way in which we could target the issue of negative social comparison.")

³⁸¹ Jayakumar Tr. 167-168 (discussing "Project Daisy").

findings, noting that "[y]oung people directly attribute anxiety and low self-worth to the constant comparison to others on social media."382 A 2018 internal Meta presentation found that that "51% of people experience social comparison on Instagram, and that negative social comparison lowers well-being (loneliness, life satisfaction, self-worth, and self-efficacy)...33% of people have been feeling worse about themselves on IG 'several months to a year." Meta recognized the importance of the like button, reactions, and comment features in causing social comparison.³⁸⁴

This connection between the Instagram Experience and Worsening Body Image in 327. the individual is captured in the below Meta diagram³⁸⁵:



Bates Number: META3047MDL-019-00036714, at slide 23

³⁸² Gross Ex. 9 - META3047MDL-003-00091414 at 45 (slide 44); Gross Tr. at 76, 81.

³⁸³ Bhutada Ex. 11 - META3047MDL-020-00082810 at 82818

³⁸⁴ Burke Tr. at 142, Burke Ex. 11 - META3047MDL-020-00588060 at 7.

³⁸⁵ META3047MDL-019-00036714, at slide 23.

- "O. Do you remember an instance where Meta imposed the "without a shadow of a doubt" standard on any decision regarding safety?
- A. I think the work around negative social comparison was a very good example of this. We had done a lot of understand work on negative social The researchers had done an incredible job of putting really comparison. compelling research together. The product teams had put together road maps. There was a good databased approach to how we could approach social comparison. We had working hypotheses of products that we could build. And yet, when it came to final product review, because it didn't seem to be, without a shadow of a doubt, something that would improve social comparison, we couldn't move forward on that roadmap."388
- Use of Meta's platforms also contributes to eating disorders by amplifying pro-329. anorexia posts, unrealistic beauty standards, and normalized disordered eating behavior. While physicians have also encountered some of this in treating patients, the design of social media

Ex. 10 at 2-3 - META3047MDL-020-00250464 at 0465-0466.

³⁸⁷ META3047MDL-037-00007064 at 7066.

³⁸⁸ Jayakumar Tr. 568-569; Jayakumar Tr. 139 ("I think the company could have done more to address negative social comparison").

amplifies this type of content in a way that contributes to the development of eating disorders and body dysmorphia.

This amplification of harmful content is a result of several design features, 330. including the platform's ranking algorithms, which lead users down dangerous rabbit holes.³⁸⁹ "Rabbit holing" is a design phenomenon I have seen in patients in my clinical practice. Meta recognizes that teenagers, as a result of their brain development, are particularly vulnerable to rabbit holing.³⁹⁰ Meta's internal documents reflect a connection between rabbit holing and decreased well-being and increased social comparison.³⁹¹ This is particularly problematic when Instagram recommends and aggregates content on Explore and Reels that can exacerbate eating disorders, a phenomenon that Meta employees have acknowledged and discussed internally.³⁹²

331. In 2021, an internal Meta report titled "Thinstagram': Instagram's algorithm fuels eating disorder epidemic" revealed how easy a user can fall into an eating disorder rabbit hole, "with anorexia 'coaches' reaching out with unsolicited offers to provide weight loss advice." ³⁹³ The report concluded that the platform amplifies content promoting extreme weight loss.³⁹⁴ This can occur through the algorithm's promotion of content that, on its own, does not violate any of Meta's policies or community standards:

³⁸⁹ Jayakumar Tr. 139 (agreeing that recommendation algorithm in Instagram Explore and Reels "played a contributory role" in negative social comparison).

Ex. 7 at 18 - META3047MDL-136-00009474 at 9491.

Ex. 31 at 19 - META3047MDL-044-00035618 at slide 17.

³⁹² Jayakumar Tr. 178-187; Jayakumar Ex. 17 – META3047MDL-040-00541685 ("the challenge is that when you zoom in, any of those photos probably wouldn't be triggering, but in an Explore grid with all these photos stacked against one another, it's pretty overwhelming").

 $^{^{393}}$ Rothschild Ex. 29 - META3047MDL-031-00242502; Rothschild Ex. 30; Rothschild Tr. at 451-100242502; Rothschild Ex. 30; 456.

³⁹⁴ Rothschild Ex. 29 - META3047MDL-031-00242502; Rothschild Ex. 30; Rothschild Tr. at 451-456.

Q. Okay. So if an Explore grid for a teenage girl consists entirely of dieting tips,

that would not violate Instagram's community standards and it would not violate Instagram's borderline policies, correct?

MR. SNEED: Object to form, vague.

THE WITNESS: Correct.

BY MR. WARREN:

Q. But that could still create a problem for that individual because of the aggregated nature of that content, correct?

MR. SNEED: Object to form.

THE WITNESS: Yes, definitely.

BY MR. WARREN:

Q. And that's not a problem that Instagram devoted the technical resources to fix while you were there, correct?

MR. SNEED: Object to form and foundation.

THE WITNESS: That's correct." 395

332. This amplification of eating disorder content is part of the mechanism by which social media use contributes to the development of eating disorders. Recent academic literature discussed above recognizes this connection, and it's echoed in the patient histories in my clinical practice. Again, this is not a problem that Meta appears to have tackled with sufficient urgency.³⁹⁶ Nor did Meta warn the public about this problem.³⁹⁷

³⁹⁶ Jayakumar Tr. 188 ("due to just overall under-resourcing of this area, we certainly couldn't move as fast or as extensively as we would have liked, given the solutions that were available to us").

³⁹⁵ Jayakumar Tr. 191.

³⁹⁷ Jayakumar Tr. 192.

B. TIKTOK

333. TikTok entered the US market in 2017.³⁹⁸ TikTok is the brainchild of Beijing-based technologist Zhang Yiming and American venture capitalist, Matt Huang through their company, Bytedance. The company's first social media platform, Douyin, was exclusively available in China and loosely based on another popular app, Musical.ly that allowed users, including minor users, to create 15-second videos of themselves lip-syncing, dancing, or goofing around to popular songs and movie scenes, and then post them to a scrollable feed for other users to see. The following year, ByteDance created TikTok, a version of Douyin for non-Chinese markets, and purchased Musical.ly, which had grown its userbase to nearly 60 million monthly active users. Nine months later, ByteDance merged its newly acquired app into its existing product, and a global version of TikTok was born.

334. Since its launch, TikTok has grown exponentially. In late 2021, ByteDance publicly stated that TikTok had 1 billion active global users, up from 55 million in early 2018 and 700 million in mid-2020.³⁹⁹ One internal marketing strategy document reported that as of July 2020, TikTok had 95% market penetration in Mobile App Users/ smartphone population of users under 17—many of whom are American children.⁴⁰⁰ In fact, in July 2020, TikTok reported that more than one-third of its 49 million daily users in the United States were 14 or younger.⁴⁰¹

³⁹⁸ TIKTOK3047MDL-072-LARK-01062915

³⁹⁹ Jessica Bursztynsky, TikTok says 1 billion people use the app each month, CNBC (Sept. 27, 2021), https://www.cnbc.com/2021/09/27/tiktok-reaches-1-billion-monthly-users.html.

⁴⁰⁰ TIKTOK3047MDL-001-00000622 at *27.

⁴⁰¹ Raymond Zhong & Sheera Frenkel, A Third of TikTok's U.S. Users May Be 14 or Under, Raising Safety Questions, N.Y. Times (Aug. 14, 2020), https://www.nytimes.com/2020/08/14/technology/tiktok-underage-users-ftc.html.

- During this period of rapid growth, Bytedance recognized that teens were critical to TikTok's continued success. In fact, one of TikTok's creators remarked in 2016 that "[t]eenagers in the U.S. [were] a golden audience" for emerging social media products. 402 This is reflected in TikTok's internal documents, which identify the app's "ideal user composition" as consisting primarily of teens under 17 years old. 403 In particular, TikTok specifically targeted teen girls between the ages of 13-17 when building new features, such as beauty filters. 404 They even went so far as to pay popular teen "influencers," such as Charlie and Dixie D'Amelio, to create content and participate in livestreams to encourage teens to spend more time on their app. 405
- 336. As part of their business model to capture teens' attention, TikTok followed its predecessors (and competitors) by designing their app to create "habit moments" where "new users start to form a habit of coming to TikTok regularly." They also leveraged common features such as the infinite scroll, constant notifications, and likes to create a slot machine-like effect that "detract from user agency." These features are widely recognized in the literature as increasing addictive-like behavior and risk of addiction.
- Internal documents note that younger users, a primary target audience, are 337. "particularly sensitive to reinforcement in the form of social reward and have minimal ability to

⁴⁰² Paul Mozur, Chinese Tech Firms Forced to Choose Market: Home or Everywhere Else, N.Y. Times (Aug. 9, 2016), https://www.nytimes.com/2016/08/10/technology/china-homegrowninternet-companies-rest-of-the-world.html.

⁴⁰³ TIKTOK3047MDL-022-00522755, Slides 9-11.

⁴⁰⁴ TIKTOK3047MDL-004-00290821, -0821.

⁴⁰⁵ See TIKTOK3047MDL-001-00000812, Row 10

⁴⁰⁶ TIKTOK3047MDL-001-00003427, -3460

⁴⁰⁷ TIKTOK3047MDL-002-00101525, -1538

self-regulate effectively."408 TikTok's internal studies on this issue determined that 50% of inactive users cited time management as an issue, while 23% reported spending too much time on the app. 409 These conclusions are also reflected in data published in publicly available studies. For example, a 2022 Pew Research Center survey reported that 67% of American teenagers (age 13-17) use TikTok, over half of which (58%) used the product daily. 410 Another study found that nearly of quarter of survey teens reported using TikTok almost constantly. 411 Another study from 2022

found that more than 13% of young users declared they "wouldn't want to live without" TikTok. 412

Internal documents also draw a connection between certain features and a negative 338. impact on teens users' mental health. For example, beauty filters expose teen uses to "narrow and unrealistic representations of beauty" and a "lack of transparency about use of filters means they don't always understand that the images they see are unattainable."413 A problem which is exacerbated by the platforms algorithms which "[l]ead[] users to harmful content they would not have encountered otherwise." ⁴¹⁴ Internal documents provide further support that TikTok's design promoted compulsive use, and that compulsive use "correlates with a slew of negative mental

⁴⁰⁸ TIKTOK3047MDL-002-00101525, -1538

⁴⁰⁹ TIKTOK3047MDL-004-00137151, -7152; See also TIKTOK3047MDL-002-00091798, ,-1800 (Concluding that 10M TikTok DAU engage in "objective harmful usage" (6+ hours/day)).

⁴¹⁰ Raymond Zhong & Sheera Frenkel, A Third of TikTok's U.S. Users May Be 14 or Under, Raising Safety Questions, N.Y. **Times** 14. (Aug. 2020). https://www.nytimes.com/2020/08/14/technology/tiktok-underage-users-ftc.html.

⁴¹¹ Emily Vogels et al., Teens, Social Media and Technology 2022, Pew Rsch. Ctr. (Aug. 10, https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022), 2022/.

⁴¹² Victoria Rideout et al., Common Sense Census: Media use by tweens and teens, 2021 at 31, Common Sense Media (2022), www.commonsensemedia.org/sites/default/files/research/report/8-18-census-integrated-report-final-web_0.pdf.

⁴¹³ TIKTOK3047MDL-036-LARK-00173301, -3302-03.

⁴¹⁴ TIKTOK3047MDL-002-00064418, -4419.

effects like loss of analytical skills, memory formation, contextual thinking, conversational depth, empathy, and increased anxiety."⁴¹⁵ Additional documents recognize that for some users, the use of TikTok "interferes with essential personal responsibilities like sleep, work/school responsibilities, and connecting with loved ones."⁴¹⁶

339. I have reviewed some documents reflective of efforts to provide "safety" features or reduce risk to adolescents. From what I reviewed both internally and in the ongoing studies, these safety features have been unsuccessful. For example, the researchers at TikTok showed that the "Take a Break" feature—which is intended to encourage users to spend time off of the app after set period of use— was not effective at helping users "take a minute to be mindful of their usage" in part because it had "very low friction" that "allow[ed] users to easily skip past it."

This is consistent with my own clinical practice, in which I observe the difficulties patients have in reducing or stopping usage of TikTok.

C. SNAP

340. Snapchat was started in 2011 in the United States. When first started, Snapchat was primarily a photo sharing platform and was called "Picaboo." The application quickly gained traction among teens and pre-teens, as the photos that were shared would disappear after a set amount of time. This illusion of privacy created significant user growth in younger users.

⁴¹⁵ TIKTOK3047MDL-004-00137151, 7152; See also TIKTOK3047MDL-118-LARK-06076591, -6598 ("Almost 70% [of surveyed teens] say[] that social media makes them feel stressed, anxious, and depressed.").

⁴¹⁶ TIKTOK3047MDL-001-00060515, -0518; See also TIKTOK3047MDL-002-00091798, -1801 (Linking to an internal study where users reported that TikTok had a negative impact on sleep and "external research [that] suggests a causal relationship between social media use at night and delayed sleep.").

⁴¹⁷ TIKTOK3047MDL-002-00091546. -1549; See also TIKTOK3047MDL-002-00091546. -1549 ("91% of users watch less than 5 seconds of the TAB videos, so most people are not actually taking a break and reflecting on their screen time.").

Rebranded as Snapchat, the application continued to evolve its design, to include other common social media features such as notifications, appearance/beauty filters, streaks/metrics, friend maps, and message features. As discussed below, many of these features increased the addictive nature of Snapchat and risk of harm from use.

341. A review of internal documents shows that Snap received body image complaints from users. For example, internal research showed complaints, such as "Because the filters actually make me look decent instead of being a horrendous, ugly black girl." The same internal research found that "Users are very quick to point out their own perceived physical flaws, users feel confident when using lenses. Users are simultaneously left feeling bad about how they look without one. This underlines a key issue mentioned in research with employees around lens dysmorphia." Snap's internal studies confirmed that negative body image was a top concern of its young female users, and depression and anxiety were the top concerns among all young users. 420

342. Of particular concern were "beautification" lenses, many of which were produced by Snap, and which altered users features to mimic the effect of makeup or plastic surgery. These types of lenses significantly increased users' engagement with Snapchat, with tests finding that "[u]sing subtle slimming and bigger eyes increase[ing] +9% sends and +14% story posts." But these lenses also hewed to a very specific standard of beauty, with many lightening users' skin, turning their eyes blue, and altering the shape of their face and features.⁴²¹ For example, when a Black Snap employee used a popular filter, developed by Snap, that was supposed to make her

⁴¹⁸ Exhibit 20 and 21 of Morgan Hammerstrom Deposition.

 $^{^{419}}$ Exhibit 20 and 21 of Morgan Hammerstrom Deposition

⁴²⁰ SNAP0933703 at 3724.

⁴²¹ SNAP6424511.

look like an anime character, it lightened her skin, narrowed her nose, narrowed her lips, and smoothed away her braids. 422





Bates Number: SNAP0173430

- 343. Snap recognized that its algorithmic recommendation systems amplified the impact of these lenses on users. Agatha Baldwin, Snap's Global Head of Trust and Safety, observed that "[u]sers are able to self select into 'beautifying lens' based on their engagement patterns but not (to my knowledge) able to wipe this and start with a clean slate." 423 To this day, there is no way for Snap users to opt out of recommendations for beautification lenses.
- 344. Given these risks, Snap employees questioned whether these effects should be offered on Snapchat at all. During a Q&A Evan Spiegel—founder and CEO of Snap—was asked why Snap continued to make lenses that "cause body image issues and dysmorphia in teens" and "reinforce Eurocentric standards of beauty by lightening the skin color and making the nose

⁴²² SNAP0173430.

⁴²³ SNAP0903271.

smaller."424 , a senior Snap employee, suggested banning filters that replicate plastic surgery, writing that "We can't in good faith keep turning a blind eye to this. When we glamourize the "plastic surgery look", we harm our users' mental health."⁴²⁵

But despite concern from both users and employees, face-altering filters continue 345. to be available to Snapchat users of all ages. Snap documents indicate the team tasked with creating lenses had a single-minded focus on growing Snap's metrics, even when lenses were harmful to users. For example, when initial testing of a Snap-developed lens resulted in complaints from users that the lens was worsening their body image and triggering their eating disorders, both the Communications and Policy teams opposed launching it. 426 The Lens team replied that "[t]here is no way this lens will not be launched . . . there will be 10 000 unhappy users who might leave and +4M to 8M DAU uplift from users who will join or get resurrected."⁴²⁷ Snap's Senior Director of Corporate Communications and Public Affairs was forced to clarify that their concern was about wellbeing not about the effect on user metrics. 428

⁴²⁴ SNAP0173071.

⁴²⁵ SNAP6424511.

⁴²⁶ SNAP0009825.

⁴²⁷ SNAP0009825.

⁴²⁸ SNAP0009825.

On Fri, Dec 17, 2021 at 9:50 AM Rachel Racusen Hi Victor and all --

wrote:

While we all work on the memos, I want to share a little more context about what we are concerned about. It is not about losing users. It is about what this will do to the mental health and wellbeing, in particular of teenage girls. If you are a 14 year old teenage girl who already suffers from an eating disorder -- this type of lens could have extremely detrimental effects.

We in Comms are more concerns about the impact of this lens on the wellbeing of our community, more than anything else. It's not just about the potential for controversy.

We will all discuss more, but just want it to be clear what our concerns are.

Rachel

Bates Number: SNAP0009825

346. Snap has also never undertaken any research specially examining the effect of Snapchat on users' body image. Morgan Hammerstrom, Snap's Director of Product Research, testified that she had never been asked to research a user's experience in app as it relates to having body image issues. She also testified that unless she was directly asked to research it, it did not matter to her work if users experienced body image issues in relation to a Snapchat feature.

D. YOUTUBE

347. YouTube was founded in February 2005 and in November 2006 was purchased by Google for \$1.65 billion. Two years later, in 2008, it began incorporating recommended videos—based primarily on the video's popularity—before switching to algorithmic recommendation in 2012. Three years later, it launched YouTube Kids in February 2015, which is intended for under-13-year-old children. The main difference between YouTube and YouTube Kids is that the latter introduced parental controls for under-13 children and required parental permission to create an

⁴²⁹ Hammerstrom Tr. 97:4-97:13

⁴³⁰ Hammerstrom Tr. 97:14-97:25.

account. By 2018, YouTube was the most widely used internet platform by US teens, who, on average, watched 1 hour 22 min a day.⁴³¹

348. In 2021, YouTube pivoted (along with its competitors Meta and Snap) to address new competitive pressure from TikTok by launching YouTube Shorts on both its main Platform and YouTube Kids. This feature focuses on delivering "short form" video content to users in an endless algorithmically tailored feed.⁴³² That same year, the company also launched a new version of its Supervised Account ("SupeX") to target "tweens," ages 9-12, since research showed that the content available on YouTube kids was not appealing for the vast majority of tweens.⁴³³ These accounts allow tween users to create accounts for the "main" YouTube platform while still giving parents the ability to supervise their children's content settings and limit access to certain features.⁴³⁴

349. The development of each of these experiences reflects YouTube's recognition that teens drive engagement (and by extension growth) on the YouTube platform. For example, the "YouTube Kids Vision and Strategy" reflects the importance of increasing app footprint by encouraging engagement with under-13-year-old children. In turn, YouTube hoped that these users would "age up" to the "main" YouTube platform where they'd continue to consume (and create) videos. This focus also extends to the "teen" age cohort, which the company recognizes

⁴³¹ GOOG-3047MDL-00937887, -7914

⁴³² Todd Sherman, Bringing YouTube Shorts to the U.S., YOUTUBE, located at https://blog.youtube/news-and-events/youtube-shorts-united-states/ (Mar. 18, 2021).

⁴³³ GOOG-3047MDL-02946487, -6489

⁴³⁴ James Beser, A New Choice For Parents Of Tweens And Teens On YouTube, YOUTUBE, located at https://blog.youtube/news-and-events/supervised-experiences-for-families-on-youtube/ (Feb. 24, 2021).

⁴³⁵ GOOG-3047MDL-01608261, Slide 4.

⁴³⁶ GOOG-3047MDL-01608261, Slide 4.

is critical to future success. As recently as 2023, YouTube sought to expand "teen reach" by working to accurately measure the number of teens on its platforms and create differentiated experiences for those users. 437 YouTube has even proposed rewards such as creator badges, comments, creator challenges prompts, year-in-review notifications, reflection questionnaire notifications, algorithmically recommended videos to start and keep young users creating new content.438

350. In its drive to target teens and maximize their engagement with the YouTube platform, YouTube contains numerous features that are harmful to the development of children and their mental health such as autoplay, endless scroll, notifications, likes, and comments. Collectively, these features are also designed to lead children to develop habit-like behaviors that encourage them to use the platform with increasing frequency in an effort to drive "time spent," a metric that is directly related to YouTube's revenue (e.g., increased time spent on the platform leads to an increase in revenue on a user-by-user basis). In fact, YouTube's own research determined that 23% of 18-24 years old users reported "losing track of time on YouTube," while 20% reported that YouTube "interfered with work, school, or homework." 439

351. A review of YouTube's internal documents reflects this causative connection. For example, in 2016, YouTube's development team acknowledged that their "vision" for the Platforms' success would rely on an "addictive" experience that "should compel users to come back more and more often."440 Their research also recognized that this could lead to habitual use of their platforms, which they could reinforce by offering "reliable and variable rewards" in the

⁴³⁷ GOOG-3047MDL-03277297, -7302.

⁴³⁸ GOOG-3047MDL-00666027, Slide 29-40.

⁴³⁹ GOOG-3047MDL-00937887, -7914.

⁴⁴⁰ GOOG-3047MDL-00767071, Slide 11.

form of likes, comments, "mak[ing] browsing reliably rewarding."441 Their research also determined that despite goaling on "time spent" on their platforms, "excessive video watching" was "related to addiction" since watching short videos results in a 'quick fix' of dopamine."442 These conclusions are even supported by external research that the company's research compiled on these issues. For example, one literature review presentation cited a study that found that a "common side-effect of using platforms with on-demand video can result in binge-watching and procrastination."443 Another study in the same presentation determined that "YouTube's algorithms are designed in a way to increase 'rabbit hole' watch time and 'keep people hooked on the screen.",444

352. Other research also showed that "over-exposure to videos" can lead to other issues including decreased attention spans, 445 reduced critical thinking skills, 446 and sleep deprivation. 447 It has also been linked to anxiety and depression in teens as a result of "Fear of Missing Out" ("FOMO"), which in turn can lead to reduced self-control, impulsive checking behaviors, and can even interfere with learning at school.⁴⁴⁸ Their research also showed that teens were more susceptible to these harms since "changes in brain development predisposes young teens to act more impulsively, show a greater tendency towards risk taking, and lead to an increased

⁴⁴¹ GOOG-3047MDL-01268284, Slide 25.

⁴⁴² GOOG-3047MDL-00874191, Slide 13; GOOG-3047MDL-00937887, -7899 ("A big idea we considered to create a new consumption feed, optimized to unlock 'on the go' usage, maximize time spent engaging with the feed and integrate native ads (like Instagram.").

⁴⁴³ GOOG-3047MDL-04683418, Slide 19.

⁴⁴⁴ GOOG-3047MDL-04683418, Slide 19.

⁴⁴⁵ GOOG-3047MDL-00874191, Slide 18.

⁴⁴⁶ GOOG-3047MDL-00874191, Slide 21.

⁴⁴⁷ GOOG-3047MDL-00874191, Slide 23.

⁴⁴⁸ GOOG-3047MDL-00874191, Slide 29

interest in riskier content[.]"449 This is primarily due to the widely recognized fact that the portion of the brain responsible for "executive functions aren't fully developed at this age (e.g., self-regulation and decision-making capabilities)[.]"⁴⁵⁰

In 2019, YouTube's researchers created a "two-pager" on Digital Well-Being to 353. address the impact of the addictive design of its features. This document acknowledged that the company's data showed "Habitual heavy use: ~10% (32MM) of 13-24 year olds on YouTube habitually' watch > 2 hours / day (excluding music)."451 This data also showed that "~7% of teens on YT watch past midnight on school nights," "teen 'night owls' were 88% more likely to have emotional & behavioral problems," and that "30% of users 18-24 say YouTube has cut into sleep."452

354. Yet, despite learning of these harms, YouTube continued to target habitual users by focusing on "engagement" because it was critical to "driving greater consumption of videos" thereby increasing watch time. 453 This is a continuation of its priority from the previous year which sought to make "YouTube a daily habit by driving habitual interests, contextual use cases and optimizing for intra-day usage". 454 This is also reflected in YouTube's approach to feature design. For example, one of YouTube's habit-forming features, Autoplay, was enabled "on" by default at

⁴⁴⁹ GOOG-3047MDL-02820161, Slide 5 (emphasis in original).

⁴⁵⁰ GOOG-3047MDL-02820161, Slide 5 (emphasis in original); GOOG-3047MDL-00937887, -7914 ("Potential Strategies to deal with these findings included "We believe we should focus our efforts on Teens & Young adults, who are in a crucial stage of mental, emotional and social development and are more vulnerable to wellbeing challenges.").

⁴⁵¹ GOOG-3047MDL-00937887, -7914.

⁴⁵² GOOG-3047MDL-00937887, -7914.

⁴⁵³ GOOG-3047MDL-00937887, -7889.

⁴⁵⁴ GOOG-3047MDL-04461233, -1255.

the time of launch. 455 This was because, among other things, YouTube expected that the "on" setting would generate more "watch time" (WT): "[m]ore autoplay = more WT, and that was an explicit goal of the project[.]",456 The expectation panned out. Shortly following the launch to desktop users, the YouTube Product Team reported that the "launch's impact has been huge. Autoplay now generates 16% of YouTube's desktop watch time."457 The Autoplay feature was also launched on YouTube Kids. 458 But, while YouTube Main allowed a user to turn the feature "off," YouTube Kids offered no such choice; for YouTube Kids, there was no "toggle" to turn off Autoplay. 459 YouTube also well understood that its Autoplay feature, which it acknowledged still drove 11% of "YouTube Time" in 2022, was "[t]he cultural symbol for the rabbit hole." 460 It has long known that its platform exposed teens to the glorification and encouragement of eating disorders as well as repetition of this content through the algorithm.⁴⁶¹ The addictive nature of YouTube's algorithm in surfacing a stream of related content, coupled with Autoplay, created a dangerous situation for vulnerable youth.

⁴⁵⁵ GOOG-3047MDL-04626757, Slide 9.

⁴⁵⁶ GOOG-3047MDL-04626757, Slide 9.

⁴⁵⁷ GOOG-3047MDL-04613300, -3300.

⁴⁵⁸ GOOG-3047MDL-04626757, Slide 17; GOOG-3047MDL-01714567, Slide 13 (the eventual addition of the Autoplay parental toggle for the YouTube Kids app was prompted by Age-Appropriate Design Code compliance concerns).

⁴⁵⁹ GOOG-3047MDL-04626757, Slide 17.

⁴⁶⁰ GOOG-3047MDL-01714567, Slide 9.

⁴⁶¹ GOOG-3047MDL-01776693, Slide 85 (YouTube Wellbeing Vision slide deck containing comments dated 2018 [Slide 29] also contains the following quote "I worked with a 13-year-old who was watching [YT videos] to maintain her anorexia: how to restrict your eating, hide it from your parents...a friend showed them to her. Then, once you find one video, it's so easy to see more and more.").

Dr. Garth Graham, Director and Global Head of Healthcare and Public Health at Google/YouTube, a cardiologist, researcher and public health expert, who admitted he had not worked in mental health nor received training specific to mental health beyond his experience as a general internist, currently spends approximately 50% of his time at YouTube advising on mental health topics. 462 Dr. Graham testified that YouTube had policies "advanced around triggering eating disorders...in April of 2023" targeting "imitable behavior." On April 16, 2023, Dr. Graham shared updated Community Guidelines with his colleague . Director of North American Partnerships. 464 The new approach was intended to prohibit content about eating disorders featuring behavior, such as "purging after eating or severely restricting calories," that could lead to imitation by at-risk viewers. 465 In conjunction with this policy, YouTube introduced an updated approach to age-restricting certain content related to eating disorders. 466 However, the updated policy regarding age-gating of certain content also allowed YouTube to retain content "that would otherwise violate" the policy if the video was "1.) in the context of recovery, or 2.) contain[ed] educational, documentary, scientific, or artistic context."467 This provision casts a wide retention net for videos that might otherwise be removed. For example, a video about disordered eating, containing examples of severe restriction of caloric intake to 500 calories a day, is prohibited, unless it is done in an artistic context, in which case, YouTube will not remove it but will instead age-restrict it. Unfortunately, YouTube's age-gating is completely

⁴⁶² Garth Graham Dep., March 5, 2025, 28:11-23; 30:5-10.

⁴⁶³ Garth Graham Dep., March 5, 2025, 94:17-95:6.

⁴⁶⁴ Garth Graham Dep., March 5, 2025, Ex. 21 (GOOG-3047MDL-02569583); Garth Graham Dep. 76:14-18.

⁴⁶⁵ Garth Graham Dep., March 5, 2025, Ex. 21 (GOOG-3047MDL-02569583).

⁴⁶⁶ Garth Graham Dep., March 5, 2025, Ex. 21 (GOOG-3047MDL-02569583).

⁴⁶⁷ Garth Graham Dep., March 5, 2025, Ex. 21 (GOOG-3047MDL-02569583).

ineffective because, in the U.S., YouTube relies solely on self-declared age. Thus, children can easily circumvent these "protections" by merely entering a false birthday to appear over the age of eighteen. 468 In fact, the updated policy does very little to deter a teen trying to view such videos from accomplishing this task.

In 2023, YouTube's Teen Responsibility Squad, led by team captain and Product 356. , sought approval to move forward with Project VIBE ("Volume Impacts well-Manager Being"), which recognized that teens are developmentally unique and repetition of messages in certain content to this demographic is problematic. 469 The focus of Project VIBE was content that did not violate YouTube's terms of service but, nonetheless, had the potential to negatively impact youth when viewed in high volume.⁴⁷⁰ Through a literature review and consultation with external child development experts, known internally as "OWLs," YouTube concluded that "[t]eens look to external cues to establish norms and are easily influenced by the repetition of messages" and that "repetition of some content may affect teens' social and emotional development[.]"471 Project VIBE initially identified three types of content associated with harmful impact when viewed in volume:

Social comparison – content, such as diet and fitness videos containing calls to change one's physique, that could be detrimental to teens' self-esteem and self-image;

⁴⁶⁸ Matt Halprin Dep., February 11, 2025, 44:23-10 (The implementation of these systems [agegating content] is dependent on accurate age verification, which, in the U.S. is based on declared age); 213:8-16 (agreeing that "no matter how good a job [Trust and Safety] did in identifying content[,]" a minor who lied about age would still see it).

⁴⁶⁹ GOOG-3047MDL-05710514, -0519; Jyoti Ramnath Dep., November 19, 2024, Ex. 8 (GOOG-3047MDL-00125531 at 5532-34) (The risk of volume viewing for certain categories of videos and repeated watching of dieting/fitness videos, in particular, was being discussed in 2021); GOOG-3047MDL-01287601.

⁴⁷⁰ GOOG-3047MDL-05710514, -0522.

⁴⁷¹ Garth Graham Dep., March 5, 2025, 102:24-103:4 (OWLs are external experts); GOOG-3047MDL-05710514, Slides -0524-0526, -0599.

- Social aggression content that could lead to fear, desensitization, and an increase in aggressive behaviors; and
- Antisocial behavior content that combined with a negative mood could increase the likelihood of antisocial behavior.⁴⁷²

Social comparison and social aggression, both of which had been emphasized by 357. parents, teens, and experts, were the initial focus. 473 The perspective of experts consulted by YouTube was that negative social comparison regarding physical features, attractiveness, weight, and fitness constituted one of the highest risk for reduced well-being. 474 YouTube's research on negative social comparison acknowledged studies that women with eating pathology and high body dissatisfaction were "most negatively affected by comparisons...and an increase in eatingdisordered behavior after upward comparisons."⁴⁷⁵ One attribute of negative social comparison YouTube associated with weight and fitness were calls to pursue an ideal standard promoting changing one's physique to obtain an idealized or superior physical appearance.⁴⁷⁶ Another was weight loss "how to" or directions "instructing or directing the viewer to lose weight." Such content was non-violative and would not qualify for removal. The solution proposed by Project VIBE, which was ultimately adopted, was defining a new class of content and dispersing it in recommended feeds for declared teens aged 13-17.478 However, even in 2022, while Ye's team sought a December 2022 launch, it expected the launch to be delayed to the first quarter of 2023,

⁴⁷² GOOG-3047MDL-05710514,-0526-0528.

⁴⁷³ GOOG-3047MDL-05710514, -0534.

⁴⁷⁴ GOOG-3047MDL-05710514, -0535.

⁴⁷⁵ GOOG-3047MDL-05710514, -0552.

⁴⁷⁶ GOOG-3047MDL-05710514, -0554.

⁴⁷⁷ GOOG-3047MDL-05710514, -0554.

⁴⁷⁸ GOOG-3047MDL-05710514, -0532, -0575.

"due to lots of uncertainty" including a "lack of leadership buy-in" on the general approach. 479 YouTube leadership's slow warming to Project VIBE was also documented by Erin Turner, Ye's superior, who wrote in support of Ye's promotion within YouTube, "executives...were skeptical when this work was started but exceedingly happy it had already been done with the regulatory tides shifted abruptly this year." 480

358. Despite a lackluster response from leadership, the VIBE classifier launched on YouTube Main and in SupeX in 2022;⁴⁸¹ however, measuring effectiveness proved elusive. On March 26, 2023, Jessica DiVento Dzuban, formerly YouTube's Global Head of Mental Health,⁴⁸² wrote to a group including Dr. Garth Graham, regarding the efficacy of health features on YouTube:

VIBE: this one's tricky as a winning result would be that we do not increase risk (eg, a person's risk level would remain neutral after being exposed to video dispersal). Hypothesis is that exposure without VIBE would increase risk. But doing A/B testing on this is likely unethical (as we wouldn't expose someone to risk increasing content if that's our hypothesis). 483

359. This means that the teens who experienced high concentrations of categories of content covered by the VIBE classifier experienced a risk so unreasonable that it would not be ethical to study under conditions involving a control group of teens being shown the same type of material in volume. Dr. Graham testified that he did not know if the success of VIBE was ultimately measured by a reduction in VIBE impressions.⁴⁸⁴ In fact, it appears to be the only success metric

⁴⁷⁹ GOOG-3047MDL-05710514, -0632-0633.

⁴⁸⁰ Erin Turner Dep., January 22, 2025, Ex. 17 (GOOG-3047MDL-02509749, -9750).

⁴⁸¹ Erin Turner Dep., January 22, 2025, 250:6-251:15.

⁴⁸² Jessica Dzuban Dep., February 26, 2025, 25:10-13.

⁴⁸³ Deposition of Garth Graham, March 5, 2025, Ex. 17 (GOOG-3047MDL-04186789).

⁴⁸⁴ Garth Graham Dep., March 5, 2025, 230:1-231:15.

considered.⁴⁸⁵ Questioned about how the success of the VIBE classifier might be measured in terms of decreased or increased risk to teens, Dr. Graham was unable to articulate a method for measuring VIBE's efficacy, finally admitting "I can't speak to that in general":

So how can - how can the efficacy of VIBE in terms of decreased or O. increased risk to teens be measured?

You know, so I think one could think – there are different ways that one could think about studying populations, you know, in – in different ways, survey data, different ways. So - so - so I can't say - I can't say it is not possible to do that.

But as you sit her today, you don't have an answer about how it could be 0. done?

MR CHIOU: Objection to form. You can answer, Dr. Graham

BY THE WITNESS:

No. I said there are a lot of different options that if - if I was - if - if that - that potentially – I'm sorry. There are a lot of different options that it can be done. So I – I didn't say that it can't be done.

BY MS. HAILESELASSIE:

- Can you tell me one of those options? Q.
- Yeah. So I think I think there are ways you could think through survey and – and exposure data that would then have you think through, again, the – the hypothesis of the next step of survey and exposure. So I think there's different ways to kind of think this through. And – on the product, and I have – I am not – I don't know what or way – may not be happening there because I can't speak to that in general.486

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⁴⁸⁵ Garth Graham Dep., March 5, 2025, Ex. 18 (GOOG-3047MDL-04341733, -1733) (In a Health 2-Pager listing Dr. Graham as in individual responsible for the content, 2023 Success Metrics include "XX% reduction in VIBE impressions" with a suggestion by an unknown commenter that, given an understanding that "harm from VIBE content is in repeated viewing...a better metric" might be "something like "'% sessions with too much VIBE content'?"); Garth Graham Dep., 234:5-237:21, Ex. 19 (GOOG-3047MDL-04347047, -7051) (February 14, 2024 H1 YT Biz Team Meeting Dory Brief addressing parents' concerns with TikTok and their children using YouTube Shorts in similar ways and reporting the launch of the VIBE classifier in Shorts and stating, "Since launching in shorts in Q4 such Vibe has reduced these recs [e.g. certain beauty videos that create negative social comparison for a teen] by -42%").

⁴⁸⁶ Garth Graham Dep., March 5, 2025, 227:12-228:17.

- Ultimately, Dr. Graham admitted that he was not personally involved in 360.
- other "well-being" features, internal documents reflect a dearth of concern for the efficacy of such

conversations about reporting on the efficacy of VIBE through any metric. 487 As with YouTube's

tools.488

- Although Erin Turner, a Group Product Manager on YouTube's Youth Team and
- superior, 489 testified that volume, more so than content, was the issue addressed by

VIBE, Dr. Graham's testimony evidenced an inability to distill the concept to these simple terms.⁴⁹⁰

He denied the VIBE classifier was designed to address a category of content recommended

repeatedly to a teen by the YouTube algorithm and, instead, insisted the "challenge is...within the

concept of understanding content."491 In fact, the concept of VIBE is easily understood as a

problem created by YouTube's recommendation systems. 492 The repeated recommendation of

content that did not violate YouTube's terms of service but could potentially negatively impact a

vulnerable youth was a problem that YouTube needed to solve to make the platform safer for

children. The solution it chose was dispersing certain categories of content from concentration in

⁴⁸⁷ Garth Graham Dep., March 5, 2025, 237:7-21.

⁴⁸⁸ James Beser Dep., April 3, 2025, Ex. 62 (GOOG-3047MDL-01714567 at 42) ("How are we measuring wellbeing? Current answer - we're not?"); See, generally James Beser 30(b)(6) Dep., April 9, 2025 (acknowledging that YouTube was not measuring or attempting to measuring the efficacy of digital well-being features such as Autoplay default off, take a break reminders and bedtime reminders).

⁴⁸⁹ Erin Turner Dep., January 22, 2025, 29:5-31:17).

⁴⁹⁰ Erin Turner Dep., January 22, 2025, 70:12-71:10 (Q: Okay. So it's the volume that's the --that's the issue, more so than the content, correct? A. Yeah, that's correct.)

⁴⁹¹ Garth Graham Dep., March 5, 2025, 80:5-87:10.

⁴⁹² Sharon Stovezky Dep., December 11, 2024, 95:21-25 (Q: Okay. Do you agree that the potential mental health harm comes from the Watch Next feed having many more videos that repeatedly make the same negative social comparison? A. I would say it's a combination of the user kind of urged to watch or choice to watch more content this way. And then the loop of it feeding that signal into the recommendation system").

the recommendation feed of teenagers. According to Turner, VIBE was initially rolled out to YouTube Main, including SupeX, in 2022 then extended "globally" in 2023.493 VIBE was not extended to YouTube Shorts until the latter half of 2023. 494

In Dr. Graham's initial testimony on VIBE, he called it "cutting edge" and 362. elaborated, "there are not a lot of other platforms that do this kind of work;" however, when asked if YouTube was "operating in uncharted territory" and asked to recall his initial comment, he claimed to have "misspoken" claiming, "I don't know the details of what other folks are doing...I don't have insight into what other folks are working on or doing[.]⁴⁹⁵ Dr. Graham admitted that external experts had helped YouTube identify issues that could potentially harm children and/or teens but was unable to say whether or not YouTube had communicated this issues to the public upon identification, claiming "that's not where my team works." ⁴⁹⁶ In actuality, public communication was very much a part of Dr. Graham's job. In March of 2024, wrote to Dr. Graham about setting up introduction meetings for Dr. Graham with top tier reporters to discuss YouTube's "approach to mental health so far" including the eating disorder [policy] launch, VIBE, and the World Health Organization partnership. 497 The goal for these meetings was to "build a relationship with the reporter to shape coverage for future announcements." ⁴⁹⁸ On March 11, 2024, Dr. Graham and connected ahead of Dr. Graham's "off record intro meeting" with Wall Street Journal family columnist Julie Jargon, during which

⁴⁹³ Erin Turner Dep., January 22, 2025, 250:6-251:15.

⁴⁹⁴ Jessica Dzuban Dep., February 26, 2025, Ex. 14 (GOOG-3047MDL-04190811, Slide 44).

⁴⁹⁵ Garth Graham Dep., March 5, 2025, 81:5-12; 221:24-223:18.

⁴⁹⁶ Garth Graham Dep., March 5, 2025, 222:10-225:18

⁴⁹⁷ GOOG-3047MDL-03304579 at 4580.

⁴⁹⁸ GOOG-3047MDL-03304579 at 4580.

reiterated, "the main goals are to talk her through our most significant teen mental health work in the past year...[c]onnecting the [eating disorder] update to VIBE to partnerships[.]"499 Though Dr. Graham's work includes public relations for YouTube to discuss its work in these areas, he was unable to communicate what, if anything, was communicated to parents or the public when YouTube identified a potentially harmful feature of its algorithm that was being used by millions of children and teenagers every single day. Internal efforts do not reflect information that such notifications or warnings ever occurred. Tellingly, Dr. Graham's off record interview with Jargon occurred years after YouTube first identified the issue VIBE was designed to mitigate.

XIX. CONCLUSION

Based on my systematic review of the literature and information publicly available, 363. as well as my review of defendants' internal documents and my professional experience in the field, social media use is causally connected to the development and exacerbation of eating disorders. In particular, the design features of social media apps, as reviewed above, promote targeted exposure to a series of constructs known to enhance the risk of developing an eating disorder. Eating disorders are among the most lethal of all psychiatric disorders and are most common in children and adolescents. Eating disorders portend profound suffering, impaired functioning, pervasive and irreparable organ damage, and may markedly reduce one's life expectancy. Equally importantly, eating disorders are exceedingly difficult to treat into remission, and the best prognoses are afforded by aggressive, early, and specialized interventions while the patient is young – although the risk of relapse remains high among those who benefit from treatment – meaning that lifelong vigilance can be required among those who have suffered an eating disorder.

⁴⁹⁹ GOOG-3047MDL-02570565.

364. The Defendants' internal documents reflect similar conclusions to those reported in the academic peer-reviewed literature and underscore the necessity of the many professional eating disorder organizations who have provided strong and clear recommendations for patients to limit using social media as part of their treatment. This recommendation to forgo social media as part of treatment is consistent with my own clinical practice. Moreover, the Defendants' internal documents consistently reflect the conclusions reported in the academic peer-reviewed literature around increasing social media use exacerbating the risk for depression, self-harm, anxiety, and sleep disturbances – all of which are linked to increased eating disorder risk, and worsening eating disorder symptom severity.

Exhibit A

CURRICULUM VITAE STUART B. MURRAY, DCLINPSYCH, Ph.D.

PERSONAL INFORMATION:

Work Home

University of Southern California 5301 Balboa Blvd
Department of Psychiatry Unit D5
2250 Alcazar Street Encino
Los Angeles, CA 90033 CA 91316

Email: drstuartmurray@gmail.com Citizenship: British (United States

permanent resident) Cell: 619.436.9607

EDUCATION AND PROFESSIONAL APPOINTMENTS

EDUCATION:

2003 BSc (Hons) (Psychology), University of Central Lancashire, UK.

2011 DClinPsych, University of Sydney, Australia.

2012 Ph.D. (Clinical Psychology), University of Sydney, Australia.

2024 MSc, Neuroimaging and Informatics, University of Southern California, USA.

POST-GRADUATE TRAINING:

2014 – 2015 Postdoctoral Fellowship, University of California, San Diego, CA

ACADEMIC APPOINTMENTS:

2012 – Present 2014 – 2015 2015 – 2019 2017	International Honorary Associate Supervisor Postdoctoral Fellow Assistant Professor Dyason International Fellowship	University of Sydney, Department of Psychology, Sydney, New South Wales, Australia. University of California, San Diego, San Diego, CA, USA. Department of Psychiatry, University of California, San Francisco, San Francisco, CA, USA. University of Melbourne, Melbourne, Victoria, Australia.
2019 – 2020	Associate Professor	Department of Psychiatry & Weill Institute for Neurosciences, University of California, San Francisco, San Francisco, CA, USA.
2019 – 2024	Associate Professor	Department of Psychiatry & Behavioral Sciences, University of Southern California, Los Angeles, CA, USA.
2019 – 2024	Director	Eating Disorders Program, University of Southern California, Los Angeles, CA, USA.
2020 – 2024	Della Martin Associate Professorship	Department of Psychiatry & Behavioral Sciences, University of Southern California, Los Angeles, CA, USA.
2020 – 2024	Director	Translational Research in Eating Disorders Program, University of Southern Californiam Los Angeles, CA, USA.
2023 – Present	Honorary Visting Scholar	Magíster en Clinica de los Trastornos de la Conducta Alimentaria, Universidad Adolfo Ibañez, Chile
2024 – present	Director, Eating Disorders Program	Department of Psychiatry & Biobehavioral Sciences, University of California, Los Angeles, Los Angeles, CA, USA.
2024 – present	Franklin Mint Professorship	Department of Psychiatry & Biobehavioral Sciences, University of California, Los Angeles, Los Angeles, CA, USA.
2024 - present	Director	Translational Research in Eating Disorders Program, University of California, Los Angeles, Los Angeles, CA, USA.

CLINICAL APPOINTMENTS:

2005 – 2007	Staff Psychologist	Wyre Primary Care Trust. National Health Service, United Kingdom.
2008 – 2009	Staff Psychologist	Self Essentials Private Practice, Sydney, Australia.
2009 – 2012	Consultant Clinical Psychologist	Redleaf Practice, Sydney, Australia.
2010 – 2014	Director of Clinical Practice	Redleaf Practice, Sydney, Australia.
2011 – 2012	Specialist Consultant Family Therapist	Department of Ageing, Disability & Home Care, New South Wales Government, Australia
2015 – 2020	Attending Clinical Psychologis	t Eating Disorders Program, University of California, San Francisco, San Francisco, CA, USA.
2015 – 2020	Director of Intensive Family Therapy Program	Eating Disorders Program, University of California, San Francisco, San Francisco, CA, USA.
2016 – 2020	APA Clinical Psychology Training Program Clinical Supervisor	Department of Psychiatry, University of California, San Francisco, San Francisco, CA, USA.
2016 – 2020	UCSF Child & Adolescent Psychiatry Fellowship Attending Supervisor	Department of Psychiatry, University of California, San Francisco, San Francisco, CA, USA.
2020- 2024	Director, Eating Disorders Program	University of Southern California, Los Angeles, CA USA
2020 – 2024	Director, LAC+USC Eating Disorders Clinic	University of Southern California, Los Angeles, CA USA
2020 – 2024	Director, Keck Hospital Eating Disorders Clinic	University of Southern California, Los Angeles, CA USA
2022 – 2024	Lead Consultant, Eating Disorders Program	Children's Hospital of Los Angeles, Los Angeles, CA USA
2024 - present	Director, Eating Disorders Program	Department of Psychiatry & Biobehavioral Sciences, University California, Los Angeles, Los Angeles, CA, USA.

ADMINISTRATIVE APPOINTMENTS:

<i>Year</i> 2014 – 2016	Description Chair, special inerest group on male eating disorders	Institution, City, State, Country Academy for Eating Disorders
2014 – 2019	Director	National Association For Males with Eating Disorders
2015 – 2020	Director, Intnsive Family Therapy Program	Dept of Psychiatry, UCSF
2020 – 2024	Director, Translational Research In Eating Disorders Program	Dept of Psychiatry, USC
2020 – 2024	Director of Eating Disorders Programs	Dept of Psychiatry, USC
2024 – present	Director of Eating Disorders Programs	Dept of Psychiatry, UCLA
2024 - present	Director, Translational Research In Eating Disorders Program	Dept of Psychiatry, UCLA

LICENSURE, CERTIFICATIONS

LICENSURE:

Year License number, State, Status

2016 California Board of Psychology License number: PSY28122

BOARD CERTIFICATION OR ELIGIBILITY:

2010 NSW Board of Psychology (Australia; inactive)

2011 Australian Clinical Psychology Association (Australia; inactive)

SPECIALTY CERTIFICATION:

2017 Training Institute for Child and Adolescent Eating Disorders: Certified eating disorder specialist

HONORS, AWARDS:

<i>Year</i> 2010	Description Postgraduate Travel Grant	Awarding agency, address, city School of Psychology, University of Sydney.
2011	Postgraduate Award for Outstanding Contribution to Academic Literature	University of Sydney.
2016	Top 50 most cited Behavioral Science articles of 2015 listing	Taylor Francis Publishers.
2017	Dyason Visiting Fellowship	University of Melbourne, Australia
2017	Top 25 Article listing in Eating Disorders	The Journal of Treatment and Prevention; 1993-2017.
2019	Outstanding Contribution to Science Award	Invited International Body Image Conference.
2023	ExpertScape #9 ranked expert in the world on eating disorder research.	PubMed's ExpertScape
2023	ExpertScape #1 ranked expert in the world on body image research.	PubMed's ExpertScape
2023	ExpertScape #5 ranked expert in the world on body dysmorphic disorder.	PubMed's ExpertScape
2023	ExpertScape #3 ranked expert in the world on anorexia nervosa.	PubMed's ExpertScape
2023	Outstanding Contribution to Teaching Award	Universidad Adolfo Ibañez, Chile

TEACHING

DIDACTIC TEACHING:

Institution: University of California, San Francisco

<i>Year-Year</i> 2015 - present	Course Name Eating Disorders 101	<i>Units/Hrs</i> 6 hours	Role Primary Instructor
2015 - present	Diagnostic Interviewing for Eating Disorders	12 hours	Primary Instructor
2015 - present	The Neurobiology of Eating Disorders	6 hours	Primary instructor

Institution: University of California San Diego

Year-Year Course Name Units/Hrs Role
2014-2015 An Overview of Male Eating 5 Primary Instructor

Disorders

Institution: Universidad Adolfo Ibañez, Chile

Year-Year Course Name Units/Hrs Role

2021-2024 The Neurobiology of Eating 10 Primary Instructor

Disorders

Year-Year Course Name Units/Hrs Role

2021-2024 Novel Therapeutics in the 10 Primary Instructor

Treatment of Eating Disorders

Institution: University of Southern California

Year-Year Course Name Units/Hrs Role

2021-2024 The Treatment of Eating 4 Primary Instructor

Disorders

2021-2024 Family-Based Treatment of 4 Primary Instructor Adolescent Eating Disorders

2021-2024 Assessing Eating Disorders 4 Primary Instructor

in Ethnic and Sexual Minority

Students

2022-2023 Social Media for Scientists 2 Primary Instructor

CME COURSES DEVELOPED

Institution: Los Angeles Clinical Psychology Association (LACPA)

Year-Year Course Name Units/Hrs Role

2016 The Enigma of Male Eating 6 hours Primary instructor

Disorders

UNDERGRADUATE, GRADUATE AND MEDICAL STUDENT (OR OTHER) MENTORSHIP:

Year-Year Trainee Name Trainee Type Dissertation/Thesis/Project Title
2016-2017 Eva Pila, Ph.D. Visiting International University of Toronto, Canada

Research Fellow Mentorship

2017 - 2018	Emilio Compte, Ph.D.	Visiting International Research Fellow	Favaloro University, Argentina
2019	Mitchell Cunningham	Mentorship Visiting International Research Fellow	University of Sydney
2018	Robert Mendenhall, M.D	Mentorship Attending Clinical Supervision Research Fellow Mentorship	University of California, San Francisco
2020 – 2022	Peyman Tashkandi, M.D	Attending Clinical Supervision	LAC+USC Psychaitry Residency training program
2020 – 2022	Roxanne Velasquez, M.D	Attending Clinical Supervision	LAC+USC Psychaitry Residency training program
2020 – 2022	Brian Rodysill, M.D	Attending Clinical Supervision & research mentorhsip	LAC+USC Psychaitry Residency training program
2020 – 2022	Simone Caccamo, M.D	Attending Clinical Supervision	LAC+USC Psychaitry Residency training program
2020 – 2022	llang Guiroy, M.D	Attending Clinical Supervision	LAC+USC Psychaitry Residency training program
2020 – 2022	Roxanne Fries, M.D	Attending Clinical Supervision & research mentorship	LAC+USC Psychaitry Residency training program
2020 – 2023	Ani Sarkisyan, B.A (cand.)	Research Fellow Mentorship	Translational Research in Eating Disorders Laboratory
2020 – 2023	Faith Doney, B.A	Research Fellow Mentorship	Translational Research in Eating Disorders Laboratory
2020 – 2023	Rebecca Schauer, B.A	Research Fellow Mentorship	Translational Research in Eating Disorders Laboratory
2020 – 2024	Christina Duval, B.A	Research Fellow Mentorship	Translational Research in Eating Disorders Laboratory
2021 – 2024	Ane Balkchyan, B.A	Research Fellow Mentorship	Translational Research in Eating Disorders Laboratory
2021 – 2024	Carlee Marquez, B.S	Research Fellow Mentorship	University of Pittsburgh Ph.D. Program
2021 – 2023	Miriam Winthrop, M.D	Attending Clinical Supervision & research mentorship	LAC+USC Psychaitry Residency training program
2021 – 2023	Raghu Appasani, M.D	Attending Clinical Supervision & research mentorship	LAC+USC Psychaitry Residency training program

2021 – 2023	Mei Wai Lam, M.D	Attending Clinical Supervision & research mentorship	LAC+USC Psychaitry Residency training program
2021 – 2023	Christopher Hong, M.D	Attending Clinical Supervision & research mentorship	LAC+USC Psychaitry Residency training program
2021 – 2023	Mustafa Rehmani, D.O	Attending Clinical Supervision & research mentorship	LAC+USC Psychaitry Residency training program

GRADUATE STUDENT THESIS, EXAM AND DISSERTATION COMMITTEES: Year-Year Trainee Name Committee Type Student Department

Year-Year	I rainee Name	Committee Type	Student Department
2018	Lisa Hail, Ph.D.	Ph.D. Committee	Fairleigh Dickinson University, NJ
2019	Daniel Talbot, Ph.D.	Ph.D. Committee	University of Western Sydney

POSTGRADUATE MENTORSHIP:

Year-Year	Trainee Name	It past trainee, current position and location
2012-2016	Scott Griffiths, Ph.D.	University of Sydney, Australia
2018 - 2023	Mitchell Cunningham, Ph.D. (cand.)	University of Sydney, Australia

MENTORSHIP OF FACULTY:

2017 - Present	Scott Griffiths, Ph.D.	School of Psychology, University of Melbourne (Australia)
2017 - Present	Jason Nagata, M.D.	Division of Adolescent Medicine, UCSF
2018 - Present	Robert Mendenhall, M.D.	Department of Psychiatry, UCSF
2019 - Present	Eva Pila, Ph.D.	School of Kinesiology, Western University (Canada)
2020 - Present	Kathryn Smith, Ph.D.	Department of Psychaitry & Behavioral Sciences, USC
2021 - Present	Danielle Gonzales, Psy.D.	Department of Psychaitry & Behavioral Sciences, USC
2021 – 2023	Parissa Nilli, Psy.D.	Department of Psychaitry & Behavioral Sciences, USC
2021 – 2023	Tiffany Nakamura, LPCC	Department of Psychaitry & Behavioral Sciences, USC
2021 – 2023	Nicki Karimipour, Ph.D.	Southern California Clinical and Translational Science Institute

SERVICE

DEPARTMENT SERVICE:

Year-Year Position, Committee Organization/Institution 2015 - Present Attending Clinical Psychologist UCSF Clinical Psychology Training Program UCSF Child and Adolescent Psychiatry Clinical Instructor 2015 - Present Fellowship Program LAC+USC Eating Disorders Clinic 2020 - Present Attending Supervisor Search Committee member 2023 - Present **USC** Department of Neurosurgery

MEDICAL SCHOOL SERVICE:

Year-Year	Position, Committee	Organization/Institution
2015 - Present	Attending Clinical Psychologist	UCSF Dept. of Psychiatry
2015 – Present	Clinical Intake Assessment Attending Supervisor	UCSF Dept. of Psychiatry
2017 - Present	Member, Space & Planning Committee	UCSF Dept. of Psychiatry
2020 - Present	Attending supervisor	USC Dept. of Psychaitry & Behavioral Sciences
2020 - Present	Attending supervisor	USC Psychaitry Residency Training Program
2023 - Present	Search Committee member	USC Department of Neurosurgery

UNIVERSITY SERVICE:

Year-Year	Position, Committee	Organization/Institution
2007 - 2011	Chair, Postgraduate Research Committee	University of Sydney
	Member	
2015 – Present	Clinical Lecturer	UCSF Medical School
2017 - Present	Space and Planning Committee	UCSF Medical School

PROFESSIONAL SERVICE:

Year-Year	Position, Committee	Organization/Institution
2012 - 2019	Director	National Association for Males with Eating Disorders
2015 – 2019	Co-Chair	Academy of Eating Disorders Special Interest Group on Male Eating Disorders
2018 - Present	Scientific Advisory Council	National Eating Disorders Association
2018 – 2023	Scientific Advisory Committee	Project Heal
2021 - 2023	Scientific Advisory Committee	Legacy of Hope Summit

CONSULTANTSHIPS AND ADVISORY BOARDS:

MOULIANIBILI AND MOVISORT DOARDS.				
Year	Position, Board	Organization/Hospital/School, Institution		
2011-2013	Executive Board, Member	Australian & New Zealand Journal of Family		
		Therapy		
2011-2014	Executive Board, Member	National Eating Disorders Coalition, Australia		
2018 - 2024	Scientific Advisory Council	National Eating Disorders Association		
2023 - Present	Scientific Advisroy Board	Currax Pharmaceuticals		

PROFESSIONAL SOCIETY MEMBERSHIPS:

Year- Year	Society
2010-2012	Australian Clinical Psychology Association
2012 - 2020	National Association for Males with Eating Disorders
2013 - 2020	Academy for Eating Disorders
2016 - 2020	Association for Cognitive and Behavioral Therapies
2017 - 2020	Society for Neuroscience
2017 - Present	Training Institute for Child and Adolescent Eating Disorders

MAJOR LEADERSHIP POSITIONS: (E.G., DEAN, CHAIR, INSTITUTE DIRECTOR, HOSPITAL ADMINISTRATION, ETC.)

2012 - 2019	Director	National Association for Males with Eating Disorders
2020 - 2024	Director	Eating Disorder Programs, USC
2020- 2024	Director	Translational Research in Eating Disorders laboratory, USC
2024 - Present	Director	Eating Disorder Programs, UCLA
2024 - Present	Director	Translational Research in Eating Disorders laboratory, UCLA

RESEARCH AND SCHOLARSHIP

EDITORSHIPS AND EDITORIAL BOARDS:

Year-Year	Position	Journal/Board Name
2014 – present	Ediorial Board	Journal of Eating Disorders
2014 – present	Ediorial Board	Eating Disorders: The Journal of Treatment & Prevention
2017 - present	Ediorial Board	Journal of Adolescent Health
2018 – present	Ediorial Board	Body Image
2018 – present	Ediorial Board	Behaviour Research and Therapy
2015	Guest Editor	Eating Disorders: The Journal of Treatment & Prevention
2019	Guest Editor	International Journal of Eating Disorders
2020 - 2023	Associate Editor	Body Image

MANUSCRIPT REVIEW:

Year-Year Journal 2013 - 2015Advances in Eating Disorders: Theory, Research and Practice American Journal of Men's Health 2013-present 2014-present Australian Review of Psychology 2013-present Australian & New Zealand Journal of Psychiatry 2015-present Behaviour Research and Therapy 2015-present BMC Journal of Eating Disorders 2017-present **BMC** Psychiatry **BMC** Psychology 2017-present 2018-present British Medical Research Council 2014-present **Body Image** Clinical Child Psychology and Psychiatry 2014-present 2018-present Clinical Psychology Review 2017-present Comprehensive Psychiatry **Current Psychiatry Reports** 2015-present Drug and Alcohol Dependence 2016-present 2016-present **Eating Behaviors** 2013-present Eating Disorders: The Journal of Treatment & Prevention European Child + Adolescent Psychiatry 2015-present European Eating Disorders Review 2014-present 2018-present **Human Brain Mapping** 2016-present International Journal of Eating Disorders 2015-present International Journal of Men's Health 2015-present International Journal of Psychiatry in Clinical Practice 2017-present JAMA Pediatrics 2018-present JAMA Psychiatry 2018-present Journal of Abnormal Psychology 2016-present Journal of Adolescent Health 2015-present Journal of Child Psychology and Psychiatry 2016-present Journal of Drug Issues 2014-present Journal of Eating Disorders 2018-present Medical Research Council (UK) 2015-present Men & Masculinity 2018-present Metabolism 2018-present Neuroscience & Biobehavioral Reviews 2016-present **Pediatrics** 2016-present **PLoS ONE** 2016-present **Psychiatry Research**

Psychological Medicine

The Lancet

2018-present

2019-present

GRANT REVIEWS:

Year Description Awarding agency, City, State, Country

2014 – 2020 Grant Reviewer Tryg Foundation (Denmark)

2018 – 2023 Grant Reviewer British Medical Resaerch Council (UK) 2022 – Present Ad Hoc Study National Institute of Mental Health

Section member

GRANT SUPPORT - CURRENT:

Grant No. (PI): K23 MH115184 - Murray (PI) Dates of Award: 09/19/17 - 08/31/24

Agency: NIMH Percent Effort: 75%

Title: Fear Conditioning and Fear Extinction in Anorexia Nervosa.

Description: To evaluate the mechanisms of conditioned fear acquisition and fear extinction, and their neural

correlates, in adolescents with anorexia nervosa.

Role: <u>Primary Ivestigator</u> Total Direct Costs: \$994,570.00

Grant No. (PI): # - Murray (PI) Dates of Award: 03/1/21 - 09/01/24

Agency: NEDA Early Career Investigator Award Percent Effort: 10%

Title: The Open Versus Blind Weight Conundrum in Anorexia Nervosa

Description: To establish best practice clinical guidelines around weighing practices in the treatment of anorexia

nervosa.

Role: <u>Primary Investigator</u> Total Direct Costs: \$50,000.00

Agency: The Klarman Foundation Dates of Award: 03/1/20 - 12/01/24

Title: Appetitive Conditioning in Anorexia Nervosa Percent Effort: 10%

Description: To multimodally assess the psychological and physiological correlates of hedonic learning in

adolescents with anorexia nervosa.

Role: <u>Primary Investigator</u> Total Direct Costs: \$750,000.00

Grant No. Murray (PI) Dates of Award: 12/01/2023-11/30/2026

Agency: NIAAA Percent Effort: 10%

Title: A Mobile-Based Intervention to Address Heavy Drinking and Binge Eating in College Students

Description: A mobile intervention to augment ht4 prevention of bine eating and binge drinking behaviors in college

students.

Role: <u>Primary Investigator</u> Total Direct Costs: \$237,837.00

GRANT SUPPORT - PAST:

^{*} Currently in a no-cost extension

^{*} Currently in a no-cost extension

Grant No. (PI) Dates of Award: 07/01/10 – 07/01/2011

Agency: Department of Health, Victorian Government, Percent Effort: 20%

Australia

Title: Muscularity-Oriented Disordered Eating in High School Elite-Level Athletes.

Description: To ascertain the preavlence and nature of muscularity-oriented body image concerns in elite athletes, and develop prevention materials.

Role: <u>Primary Investigator</u> Total Direct Costs: \$20.000.00

Grant No. (PI): R01 MHMD012698 - Blashill (PI) Dates of Award: 09/1/17 - 04/31/22

Agency: NIMHD Percent Effort: n/a

Title: A brief, peer co-led, group-based eating disorder prevention program for sexual minority young men.

Description: To develop and evaluate a novel and peer-led eating disorder prevention program in sexual minority

men at risk for the development of eating disorder symptomatology.

Role: <u>Consultant</u> Total Direct Costs: n/a

Grant No. (PI): # - Murray (PI) Dates of Award: 07/1/18 - 06/30/21

Agency: Orlando Bravo Charitable Foundation Percent Effort: Discretionary

Title: Interoception and Fear Learning in Anorexia Nervosa: The Intersect Between Feeling and Fearing

Description: To utilize fMRI to evaluate the intersect between interoception and fear learning in adolescents with

anorexia nervosa

Role: <u>Primary Investigator</u> Total Direct Costs: \$300,000.00

GRANT SUPPORT - PENDING:

Grant No. (PI): R01-Murray (PI)

Agency: NIH

Dates of Award: Pending
Percent Effort: 30%

Title: Neurobiomarkers of the Development, Trajectory and Remission of Binge Eating Disorder

Role: Principal Investigator

INVITED LECTURES, SYMPOSIA, KEYNOTE ADDRESSES

Year	Туре	Title, Location
2012	Invited speaker	Clean Edge, Victorian Government, Melbourne, Australia.
2013	Invited speaker.	Australian Society for Psychological Medicine, Melbourne, Australia.
2013	Invited speaker.	Faculty of Medicine, University of Sydney, Australia
2014	Invited speaker.	Academy of Eating Disorders International Conference on Eating
2014	Poster presentation	Eating Disorder Research Society, San Diego.
2014	Invited teaching	University of California, San Diego, San Diego.
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2014	Invited panel	University of California, San Diego, Satellite Conference.
	moderator.	
2014	Invited presentation	Commonwealth Science Conference, Bangalore, India.
2015	Invited teaching	University of California, San Diego, San Diego.
	seminar.	
2015	Invited teaching	California State University.
	seminar.	
2015	Invited workshop.	Academy of Eating Disorders International Conference on Eating
		Disorders, Boston, MA, USA.
2015	Paper presentation.	Alimentaries au Masculin/Eating Disorders in Men. Montreal, Canada.
2015	Invited plenary webinar.	Australian & New Zealand Academy of Eating Disorders.
2015	Poster presentation.	Eating Disorder Research Society, Sicily, Italy.
2016	Invited workshop.	Los Angeles County Psychological Association, Los Angeles.
2016	Invited workshop.	International Association of Eating Disorders Professionals, San Diego.
2016	Poster presentation	Academy of Eating Disorders International Conference on Eating Disorders, San Francisco, CA, USA.
2016	Invited panel	Academy of Eating Disorders International Conference on Eating
	discussion	Disorders, San Francisco, CA, USA.
2016	Oral presentation.	Academy of Eating Disorders International Conference on Eating
	1	Disorders, San Francisco, CA, USA.
2016	Invited Guest Lecture	University of California, San Francisco, Medical School.
	on Eating Disorders.	
2016	Keynote address	Center for Hope Annual Symposium, Reno, NV, USA.
2017	Invited keynote	University of Nevada, Reno, NV, USA.
	Address	
2017	Invited lecture on	Child & Adolescent Psychiatry Fellowship program. University of
	eating disorders.	California, San Francisco
2017	Invited Workshop.	Australia & New Zealand Academy of Eating Disorders, Sydney, NSW,
		Australia.
2017	Child & Adolescent	University of California, San Francisco, San Francisco, CA.
	Psychiatry Training	
	Program Lecture	
2010	Series.	
2018	Invited Clinical	Academy of Eating Disorders International Conference on Eating
	Workshop.	Disorders, Chicago, IL, USA.
	Invited Clinical	San Diego State University, San Diego, CA.
	Workshop.	

2019	Invited Keynote Address.	Invited International Body Image Conference, Puerto Vallarta, Mexico.
	Invited Clinical	Academy of Eating Disorders International Conference on Eating
	Workshop.	Disorders, New York City, NY, USA.
	Invited Workshop.	Society for Adolescent Health and Medicine Annual Meeting,
		Washington D.C.

INVITED GRAND ROUNDS, CME LECTURES

rear	Туре	Title, Location
2017	Invited Grand Rounds	Men, Muscles and Disordered Eating. University of Melbourne, Victoria, Australia
2017	Invited Grand Rounds	The Elusive Mechanisms of Anorexia Nervosa. University of California, San Francisco
2021	Invited Grand Rounds	Novel Developments in the Treatment of Anorexia Nervosa. University of Southern California.
2022	Invited Grand Rounds	The Rising Prevalence of Eating Disorders: Meeting the Clinical Challenge. Children's Hospital of Los Angeles.

PUBLICATIONS:

REFEREED JOURNAL ARTICLES:

- 1. Murray, S. B., Rieger, E., Touyz, S. W., & De la Garza García, Y. (2010). Muscle Dysmorphia and the DSM-V Conundrum: Where Does it Belong? A Review Paper. International Journal of Eating Disorders, 43, 483-491.
 - Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 2. Murray, S. B., Rieger, E., Hildebrandt, T., Karlov, L., Russell, J., Boon, E., Dawson, R. T., & Touyz, S. W. (2012). A Comparison of Eating, Exercise, Shape, and Weight Related Symptomatology in Males with Muscle Dysmorphia and Anorexia Nervosa. Body Image, 9, 193-200. Narrative regarding author position: Conceived of the manuscript, collected all data and conducted analyses, wrote the first draft, and edited the final version.
- 3. Murray, S. B., Thornton, C., & Wallis, A. (2012). A Thorn in the Side of Evidence-Based Treatment for Adolescent Anorexia Nervosa. Australian & New Zealand Journal of Psychiatry, 46, 1026-1028. Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 4. Murray, S. B., & Wallis, A., & Rhodes, P. (2012). The Questioning Process in Maudsley Family-Based Treatment: Part 1 - Deviation Amplification. Contemporary Family Therapy, 34, 582-592. Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 5. Murray, S. B., & Touyz, S. W. (2012). Masculinity, Femininity and Male Body Image: A Recipe for Future Research. International Journal of Men's Health, 11, 3, 227-239.

Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.

6. Murray, S. B., Boon, E., & Touyz, S. W. (2013). Diverging Eating Psychopathology in Transgendered Eating Disorder Patients: A Report of Two Cases. Eating Disorders: The Journal of Treatment & Prevention, 21, 70-74.

Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.

7. Murray, S. B., Rieger, E., Karlov, L., & Touyz, S. W. (2013). An Investigation of the Transdiagnostic Model of Eating Disorders in the Context of Muscle Dysmorphia. European Eating Disorders Review, 21, 160-164.

Narrative regarding author position: Conceived of the manuscript, collected all data and conducted analyses, wrote the first draft, and edited the final version.

- 8. Murray, S. B., & Baghurst, T. (2013). Revisiting the Diagnostic Criteria for Muscle Dysmorphia. Strength and Conditioning Journal, 35, 1, 69-74. Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 9. Murray, S. B., & Touyz, S. W. (2013). Muscle Dysmorphia: Towards a Diagnostic Consensus. Australian & New Zealand Journal of Psychiatry, 47, 3, 206-207. Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 10. Murray, S. B., Rieger, E., Karlov, L., & Touyz, S. W. (2013). Masculinity and Femininity in the Divergence of Male Body Image Psychopathology. Journal of Eating Disorders, 1, 11. Narrative regarding author position: Conceived of the manuscript, collected all data and conducted analyses, wrote the first draft, and edited the final version.
- 11. Griffiths. S., Murray, S. B., & Touyz, S. W. (2013). Disordered Eating and the Muscular Body Ideal. Journal of Eating Disorders, 1, 15. *Narrative regarding author position: Co-conceived of the manuscript, and edited the final version.*
- 12. Hunt, C. J., Gonsalkorale, K., & Murray, S. B. (2013). Threatened Masculinity and Muscularity: An Experimental Examination of Multiple Aspects of Muscularity in Men. Body Image, 10, 290-299. Narrative regarding author position: Co-conceived of the manuscript, supervised data collection and analyses, provided feedback on the first draft, and edited the final version of the manuscript.
- 13. Griffiths, S., Murray, S. B., & Touyz, S. W. (2013). Drive for muscularity and muscularity-oriented disordered eating in men: The role of set shifting difficulties and weak central coherence. Body Image, 10, 636-639.

Narrative regarding author position: Co-conceived of the manuscript, supervised data collection and analyses, provided feedback on the first draft, and edited the final version of the manuscript.

14. Murray, S. B & Touyz, S. W. (2013). How do Clinicians in the Field Conceptualize Muscle Dysmorphia? Advances in Eating Disorders: Theory, Research and Practice, 1, 207-212. Narrative regarding author position: Conceived of the manuscript, collected all data and conducted Current Psychiatry Reports, 16, 447-454.

analyses, wrote the first draft, and edited the final version.

- 15. Griffiths, S., Murray, S. B., & Touyz, S. W. (2013). Toward a Framework of Muscularity-Oriented Disordered Eating. Journal of Eating Disorders, 1: 1. Narrative regarding author position: Co-conceived of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.
- 16. Murray, S. B., Loeb, K. L., & Le Grange, D. (2014). Indexing Psychopathology Throughout Family-Based Treatment for Adolescent Anorexia Nervosa: Are we on Track? <u>Advances in Eating Disorders:</u> Theory, Research and Practice, 2, 93-96. Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 17. Murray, S. B., Griffiths, S., & Le Grange, D. (2014). The Role of Collegial Alliance in Family-Based Treatment of Adolescent Anorexia Nervosa: A Pilot Study. International Journal of Eating Disorders, 47, 4, 418-421. Narrative regarding author position: Conceived of the manuscript, collected all data and conducted
- analyses, wrote the first draft, and edited the final version. 18. Murray, S. B., & Le Grange, D. (2014). Family Therapy for Adolescent Eating Disorders: An Update.
 - Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 19. Baghurst, T., Brown, T., Volderbing, J., Galli, N., Murray, S. B., Griffiths, S., & Parish, A. (2014). Reevaluation of Physique Protection as a Characteristic of Muscle Dysmorphia. North American Journal of Psychology, 16, 3. Narrative regarding author position: Co-conceived of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.
- 20. Murray, S. B., Griffiths, S., Rieger, E., & Touyz, S. W. (2014). Compulsive Exercise in Male and Female Presentations of Anorexia Nervosa: What's the Difference? Advances in Eating Disorders: Theory, Research and Practice, 2, 1. Narrative regarding author position: Conceived of the manuscript, collected all data and conducted analyses, wrote the first draft, and edited the final version.
- 21. Griffiths, S., Mond, J., Murray, S. B., & Touyz, S. W. (2014). Young Peoples' Stigmatizing Attitudes and Beliefs about Anorexia Nervosa and Muscle Dysmorphia. International Journal of Eating Disorders, 47, 2.
 - Narrative regarding author position: Co-conceived of the manuscript, provided feedback on analytic plan and the first draft, and edited the final version of the manuscript.
- 22. Griffiths, S., Angus, D., Murray, S. B., & Touyz, S. W. (2014). Unique Associations between Young Adult Men's Emotional Functioning and their Body Dissatisfaction and Disordered Eating. Body Image, 11, 2.
 - Narrative regarding author position: Co-conceived of the manuscript, provided feedback on analytic plan and the first draft, and edited the final version of the manuscript.

final version.

- 23. **Murray**, **S. B**., Griffiths, S., & Le Grange, D. (2014). Adolescent Eating Disorders & Family Therapy: An Overview of Current Evidence-Based Treatments. <u>Minerva Psichiatrica</u>, 55, 3. *Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the*
- 24. Griffiths, S., **Murray, S. B.**, & Touyz, S. W. (2015). Extending the Masculinity Hypothesis: An Investigation of Gender Role Conformity, Body Image and Eating. <u>Psychology of Men & Masculinity</u>, 16, 1.

 Narrative regarding author position: Co-conceived of the manuscript, provided feedback on analytic
 - Narrative regarding author position: Co-conceived of the manuscript, provided feedback on analytic plan and the first draft, and edited the final version of the manuscript.
- 25. Griffiths, S., Mond, J., **Murray, S. B.**, Thornton, C., & Touyz, S. W. (2015). Stigma Resistance in Eating Disorders. <u>Social Psychiatry and Psychiatric Epidemiology</u>, 50, 2. *Narrative regarding author position: Co-conceived of the manuscript, provided feedback on analytic plan and the first draft, and edited the final version of the manuscript.*
- 26. Marzola, E., Knatz, S., **Murray, S. B.**, Rockwell, R., Boutelle, K., Eisler, I., & Kaye, W. H. (2015). Short-Term Intensive Family Therapy for Adolescent Eating Disorders in Single-Family and Multi-Family Contexts: Thirty-month Outcome. <u>European Eating Disorders Review</u>, 23, 210-218. *Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.*
- 27. **Murray, S. B.**, & Anderson, L. K. (2015). An Introduction to a Special Issue on Innovations in Family Therapy for Eating Disorders. <u>Eating Disorders: The Journal of Treatment & Prevention</u>, 23, 4, 279-280.

 Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 28. **Murray, S B.**, Anderson, L. K., Rockwell, R., Griffiths, S., Le Grange, D., & Kaye, W. H. (2015). Adapting Family-Based Treatment for Adolescent Anorexia Nervosa Across Higher Levels of Patient Care. Eating Disorders: The Journal of Treatment & Prevention, 23, 4, 302-314. *Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.*
- 29. Anderson, L. K., **Murray, S. B.**, Rockwell, R., Le Grange, D., & Kaye, W. H. (2015). Integrating Family-Based Treatment and Dialectical Behavior Therapy for Adolescent Bulimia Nervosa: Conceptual Considerations. <u>Eating Disorders: The Journal of Treatment & Prevention</u>, 23, 4, 325-335. *Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.*
- 30. Murray, S. B., Anderson, L. K., Rockwell, R., Nakamura, T., Cusack, A., Griffiths, S., Le Grange, D., & Kaye, W. H. (2015). Integrating Family-Based Treatment and Dialectical Behavior Therapy for Adolescent Bulimia Nervosa: Preliminary Outcomes of an Open Pilot Trial. Eating Disorders: The Journal of Treatment & Prevention, 23, 4, 336-344.

 Narrative regarding author position: Conceived of the manuscript, collected all data and conducted analyses, wrote the first draft, and edited the final version.
- 31. Knatz, S., Murray, S.B., Matheson, B., Boutelle, K., Rockwell, R., Eisler, I., & Kaye, W. H. (2015). A

- Brief, Intensive Application of Multi-Family-Based Treatment for Eating Disorders. <u>Eating Disorders</u>: The Journal of Treatment & Prevention, 23, 4, 315-324.
- Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.
- 32. Griffiths, S., Mond J., **Murray, S. B.**, & Touyz, S. W. (2015). The Prevalence and Adverse Associations of Stigmatization in People with Eating Disorders. <u>International Journal of Eating Disorders</u>, 48, 6, 767-774.
 - Narrative regarding author position: Co-conceived of the manuscript, provided feedback on analytic plan and the first draft, and edited the final version of the manuscript.
- 33. Griffiths, S., Mond, J., **Murray, S. B.**, & Touyz, S. (2015). Positive Beliefs about Anorexia Nervosa and Muscle Dysmorphia are Associated with Eating Disorder Symptomatology. <u>Australian & New Zealand Journal of Psychiatry</u>, 49, 9, 812-820.

 Narrative regarding author position: Co-conceived of the manuscript, provided feedback on analytic
 - Narrative regarding author position: Co-conceived of the manuscript, provided feedback on analytic plan and the first draft, and edited the final version of the manuscript.
- 34. Knatz, S., Wierenga, C., **Murray, S. B.**, Hill, L., & Kaye, W. H. (2015). Neurobiologically-Informed Treatment for Adult Anorexia: A Novel Approach to a Chronic Disorder. <u>Dialogues in Clinical Neuroscience</u>, 17, 2, 229-236.
 - Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.
- 35. **Murray, S. B.**, Thornton, C., Griffiths, S., & Le Grange, D. (2015). Collegial Alliance & Family-Based Treatment of Adolescent Anorexia Nervosa: A Report of Three Cases. <u>Advances in Eating Disorders: Theory, Research & Practice</u>, 3, 3, 251-258.

 Narrative regarding author position: Conceived of the manuscript, collected all data and conducted analyses, wrote the first draft, and edited the final version.
- 36. Griffiths, S., Mond, J. M., Li, Z., Gunatilake, S., **Murray, S. B.**, Sheffield, J., & Touyz, S. (2015). Self-Stigma of Seeking Help and Being Male Predicts an Increased Likelihood of Having an Undiagnosed Eating Disorder. <u>International Journal of Eating Disorders</u>, 48, 6, 775-778. *Narrative regarding author position: Co-conceived of the manuscript, provided feedback on analytic plan and the first draft, and edited the final version of the manuscript.*
- 37. Griffiths, S., **Murray, S. B.**, & Touyz, S. W. (2015). Keeping Pace with the Growing Problem of Male Eating Disorders. <u>Medicine Today</u>, 16, 5, 63-66. *Narrative regarding author position: Co-conceived of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.*
- 38. **Murray, S. B.**, & Anderson, L. K. (2015). Deconstructing 'Atypical' Eating Disorders: An Overview of Emerging Eating Disorder Phenotypes. <u>Current Psychiatry Reports</u>, 17: 86. *Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.*
- 39. **Murray S B.**, Griffiths, S, Hazery, L., Shen, T., Wooldridge, T., & Mond, J. (2015). Go Big or Go Home: A Thematic Content Analysis of Pro-Muscularity Websites. <u>Body Image</u>, 16, 17-20. *Narrative regarding author position: Conceived of the manuscript, collected all data and conducted*

- analyses, wrote the first draft, and edited the final version.
- 40. Cohn, L., Murray, S. B., Walen, A., & Wooldridge, T. (2016). Including the Excluded: Males and Gender Minorities in Eating Disorder Prevention. Eating Disorders: The Journal of Treatment & Prevention, 24, 1, 114-120.
 - Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.
- 41. Jampel, J. D., Murray, S, B., Griffiths, S., & Blashill, A. (2016). Self-Perceived Weight and Anabolic Steroid Misuse among U.S. Adolescents. Journal of Adolescent Health, 58, 397-402. Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.
- 42. Friedman, K., Ramirez, A., Murray, S. B., Anderson, L. K., Cusack, A., Boutelle, K., & Kaye, W. H. (2016). A Systematic Review of the Efficacy of Residential and Partial Hospital-Based Treatment of Eating Disorders. European Eating Disorders Review, 24, 263-276. Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.
- 43. Murray, S. B., Griffiths, S., & Mond, J. M. (2016). Evolving Eating Disorder Psychopathology: Conceptualizing Muscularity-Oriented Disordered Eating. British Journal of Psychiatry, 208, 414-415. Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 44. Murray, S. B., Griffiths, S., Mond, J. M., Kean, J., & Blashill, A. J. (2016). Anabolic Steroid Use and Body Image Psychopathology in Men: Delineating between Appearance- versus Performance-Driven Motivations. Drug & Alcohol Dependence, 165, 198-202. Narrative regarding author position: Conceived of the manuscript, collected all data and conducted analyses, wrote the first draft, and edited the final version.
- 45. Murray, S. B., Griffiths, S., & Mond, J. M. (2016). Debunking the Sexual Competition Hypothesis as an Aetiological Model of Eating Disorders. British Journal of Psychiatry, 209, 352. Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 46. Griffiths, S., Murray, S. B., Mitchison, D., & Mond, J. M. (2016). Anabolic Steroids: Lots of Muscle in the Short-Term, Potentially Devastating Health Consequences in the Long-Term. Drug & Alcohol Review, 35, 375-376. *Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript,* provided feedback on the first draft, and edited the final version of the manuscript.
- 47. Accurso, E. C., Lebow, J., Murray, S. B., Kass, A. E., & Le Grange, D. (2016). The Relation of Weight Suppression and BMIz to Bulimic Symptoms in Youth with Bulimia Nervosa. Journal of Eating Disorders, 4:21. Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript,

provided feedback on the analytic plan, and the first draft, and edited the final version of the manuscript.

- 48. Murray, S. B., Loeb, K. L., Le Grange, D. (2016). Dissecting the Core Fear in Anorexia Nervosa: Can We Optimize Treatment Mechanisms? JAMA Psychiatry, 73, 891-892.
 - Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 49. Murray, S. B., Treanor, M., Liao, B., Loeb, K. L., Griffiths, S., & Le Grange, D. (2016). Extinction Theory & Anorexia Nervosa: Deepening Therapeutic Mechanisms. Behavior Research & Therapy, 87, 1-10.
 - Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
- 50. Goldstein, M., Murray, S. B., Rayner, K., Podkowka, J., Griffiths, S., Bateman, J. E., Wallis, A., & Thornton, C. E. (2016). The Effectiveness of Family-Based Treatment for Adolescent Anorexia Nervosa in an Independent Private Practice Setting: Clinical Outcomes. International Journal of Eating Disorders, 49, 1023-1026.
 - Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the analytic plan, and the first draft, and edited the final version of the manuscript.
- 51. Griffiths, S., Costa, D. S. J., Boyd, J. E., Murray, S. B., Mitchison, D., & Mond, J. M. (2016). Facilitating Research on Eating Disorders Stigma: Validation of the Internalized Mental Illness Scale (ISMI) in People with Eating Disorders. Advances in Eating Disorders: Theory, Research & Practice, 4, 293-308.
 - Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the analytic plan, and the first draft, and edited the final version of the manuscript.
- 52. Griffiths, S., Murray, S. B., & Mond, J. (2016). The Stigma of Anabolic Steroids. Journal of Drug Issues, 46, 1-11.
 - Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.
- 53. Mitchell, L., Murray, S. B., Cobley, S., Hackett, D., Gifford, J., Capling, L., & O'Connor, H. (2017). Muscle Dysmorphia Symptomatology and Associated Psychological Features in Bodybuilders and Non-Bodybuilder Resistance Trainers: A Systematic Review and Meta-Analysis. Sports Medicine, 47, 233-259.
 - *Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript,* provided feedback on the analytic plan, and the first draft, and edited the final version of the manuscript.
- 54. Mitchison, D., Hay, P. J., Griffiths, S., Murray, S. B., & Mond, J. M. (2017). Disentangling Body Image: The Relative Associations of Overvaluation, Dissatisfaction, and Preoccupation with Psychological Distress and Eating Disorder Behaviors in Male and Female Adolescents. International Journal of Eating Disorders, 50, 118-126.
 - Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the analytic plan, and the first draft, and edited the final version of the manuscript.

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- 55. Murray, S. B. (2017). Gender Identity and Eating Disorders: The Need to Delineate Novel Pathways for Eating Disorder Symptomatology. Journal of Adolescent Health, 60, 1-2. Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the
- 56. Cunningham, M., Griffiths S., Baillie, A., Murray, S. B. (2018). Emotion Dysregulation Moderates the Relationship Between Perfectionism and Dysmorphic Appearance Concern. Psychology of Men and Masculinity, 19, 1, 59-68. Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the analytic plan, and the first draft, and edited the final version of the
- 57. Blashill, A. J., Calzo, J. P., Griffiths. S., & Murray, S. B. (2017). Disparities in Anabolic Steroids Misuse among U.S. Adolescent Boys: The Impact of Sexual Orientation, Race, and Ethnicity. American Journal of Public Health, 107, 319-321. Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the analytic plan, and the first draft, and edited the final version of the manuscript.
- 58. Nagata, J. M., Golden, N. H., Peebles, R., Long, J., Murray, S. B., Leonard, M. B., Chang, A. I., & Carlson, J. L. (2017). Assessment of Sex Differences in Body Composition among Adolescents with Anorexia Nervosa. Journal of Adolescent Health, 60, 455-459. Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the analytic plan, and the first draft, and edited the final version of the manuscript.
- 59. Pila, E., Mond, J. M., Griffiths, S., Mitchison, D., & Murray, S. B. (2017). A Thematic Content Analysis of #CheatMeal Images on Social Media: Characterizing an Emerging Trend. International Journal of Eating Disorders, 50, 698-706. Narrative regarding author position: Conceived of the manuscript, wrote part of the manuscript, supervised data collection, the analytic plan, and the first draft, and edited the final version of the manuscript.
- 60. Griffiths, S., Murray, S. B., & Mond, J. M. (2017). Sex Differences in Quality of Life Impairment Associated with Body Dissatisfaction in Adolescents: A Population-Based Study. Journal of Adolescent Health, 61, 77-82. Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the analytic plan, and the first draft, and edited the final version of the manuscript.
- 61. Smith, K. E., Mason, T. B., Murray, S. B., Griffiths, S., Leonard, R., Wetterneck, C., Smith, B., Farrell, N., Riemann, B., & Lavender, J. M. (2017). Male Clinical Norms and Sex Differences on the Eating Disorder Inventory (EDI) and the Eating Disorder Examination Questionnaire (EDE-Q). International Journal of Eating Disorders, 50, 769-775. Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the analytic plan, and the first draft, and edited the final version of the manuscript.

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of Hyper- Muscularity. Body Image, 22, 1-5.

- 62. Mitchell, L., Murray, S. B., Hoon, M., Hackett, D., Prvan, T., & O'Connor, H. (2017). Correlates of
 - Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the analytic plan, and the first draft, and edited the final version of the manuscript.

Muscle Dysmorphia Symptomatology in Natural Bodybuilders: Distinguishing Factors in the Pursuit

- 63. Lavender, J. M., Brown, T. A., & **Murray, S. B**. (2017). Men, Muscles, and Eating Disorders: An Overview of Traditional and Muscularity-Oriented Disordered Eating. <u>Current Psychiatry Reports</u>, 19: 32.
 - Narrative regarding author position: Co-conceived of the manuscript, wrote part of the manuscript, provided feedback on the first draft, and edited the final version of the manuscript.
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- 2. Murray, S. B., Maguire, S., Russell, J., & Touyz, S. W. (2012). The Emotional Regulatory Features of Bulimic Episodes and Compulsive Exercise in Muscle Dysmorphia: A Case Report. European Eating Disorders Review, 20, 1, 68-73.
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- 8. Murray, S. B., Accurso, E. C., Griffiths, S., & Nagata, J. M. (2018). Boys, Biceps, and Bradycardia: The Hidden Dangers of Muscularity-Oriented Disordered Eating. Journal of Adolescent Health, 62, 352-355. Narrative regarding author position: Conceived of the manuscript, wrote the first draft, and edited the final version.
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- **1. Murray, S. B.**, & Touyz, S. W. (2011). Muscle Dysmorphia: A Reply to Vandereycken. <u>Eating Disorders: The Journal of Treatment and Prevention</u>, 19, 3, 291-293.
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- 1. Knatz, S., Kaye, W. H., Eisler, I. Matheson, B., Rockwell, R., **Murray, S. B.**, Boutelle, K. (2014). *Intensive Family Therapy: A Treatment Manual*. <u>Unpublished</u>.
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- 4. **Murray, S. B.**, Touyz, S. W., Rieger, E., & De la Garza Garcia, Y. Different Sides of the Same Coin: An International Comparison of Anorexia Nervosa and Muscle Dysmorphia. New Decade – New Directions, Australia & New Zealand Academy of Eating Disorders 8th Annual Conference, Auckland, New Zealand, August 2010.
- 5. Murray, S. B., Touyz, S. W., Rieger, E., & De la Garza Garcia, Y. An International Multi-Site Comparison of Muscle Dysmorphia and Anorexia Nervosa in Males. Eating Disorders Research Society, Cambridge, Massachusetts, USA, October 2010.
- 6. Goldstein, M., Murray, S. B., Raynor, K., Podkowka, J., Thornton, C., & Wallis, A. Disseminating Maudlsey Family-Based Treatment for Anorexia Nervosa to Private Practice Settings: Can it be Done? Australian and New Zealand Academy for Eating Disorders, Adelaide, Australia, August 2012.
- 7. Griffiths, S., Murray, S. B., & Touyz, S. (2012). Information processing biases in men with muscle dysmorphia and anorexia nervosa. 5th Annual Sydney Postgraduate Psychology Conference, 21 November, Sydney, Australia.
- 8. Griffiths, S., Murray, S. B., & Touyz, S. An introduction to muscularity-oriented disordered eating. PsychFest, Sydney, Australia, July 2013.
- 9. Griffiths, S, Murray, S. B., & Touyz, S. Toward a framework of muscularity-oriented disordered eating. Australian and New Zealand Academy for Eating Disorders, Melbourne, Australia, August 2013.
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- 13. Griffiths, S., Murray, S. B., & Touyz, S. (2013). Toward a framework of muscularity-oriented disordered eating. 11th Annual Conference of the Australian and New Zealand Academy for Eating Disorders, 23-24 August, Melbourne, Australia.

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- 27. Marzola, E., Knatz, S., Murray, S. B., Rockwell, R., Boutelle, K., Eisler, I., & Kaye, W. H. Short-Term Intensive Family Therapy for Adolescent Eating Disorders in Single-Family and Multi-Family Contexts: Thirty Month Outcome. Eating Disorder Research Society, San Diego, CA, USA, October 2014.
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- 30. Marzola, E., Abbate-Daga, G., Fassino, S., Murray, S. B., Klein, A., & Kaye, W. H. The Extension of the Childhood Retrospective Perfectionism Questionnaire in Order to Identify other Premorbid Traits in Anorexia Nervosa. Eating Disorder Research Society, Sicily, Italy, October 2015.
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- 34. Calzo, J. P., Auston, S. B., Murray, S. B., & Micali, N. Childhood Gender Conformity and Disordered Eating Behaviors in Heterosexual and Sexual Minority Adolescents: A UK Prospective Study. International Conference on Eating Disorders, San Francisco, USA, May 2016.
- 35. Griffiths, S., Mitchison, D., Murray, S. B., Cunningham, M., & Mond, J. M. (2016). Muscle dysmorphia in women with eating disorders: A multi-national investigation. 14th Annual Conference of the Australian and New Zealand Academy of Eating Disorders, 26–27 August, Christchurch, New Zealand.
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- 45. Griffiths, S, Murray, S. B., Mitchison, M., & Mond, J. M. (2017). Pornography use amongst sexual minority men. Society for Mental Health Research conference. 8–10 November, Canberra, Australia.
- 46. Griffiths, S, Murray, S. B., Dunn, M., & Blashill, A. (2017). Anabolic steroid use amongst gay and bisexual men living in Australia and New Zealand. Australian Professional Society on Alcohol and other Drugs. 12–15 November, Melbourne, Australia.
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- 54. Nagata JM, Garber AK, Tabler J, Murray SB, Bibbins-Domingo K. Disordered eating behaviors among overweight/obese young adults and future cardiometabolic risk in the National Longitudinal Study of Adolescent to Adult Health. Frontiers in Science, March 2019, Savannah, GA.
- 55. Nagata JM, Domingue BW, Bibbins-Domingo K, Garber AK, Griffiths S, Murray SB. The Shared Genetic Risk for Body Mass Index and Weight Loss Behaviors, Add Health Users Conference, July 2018, National Institutes of Health, Bethesda, MD.
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- 58. Griffiths, S., & Murray, S. B. Treatment attitudes and barriers to seeking treatment among individuals with eating disorder. International Conference for Eating Disorders, April 2018, Chicago, United States of America.

- 59. Nagata JM, Bibbins-Domingo K, Garber AK, Griffiths S, Vittinghoff E, Murray SB. 2018. Boys, bulk, and body ideals: sex differences in weight gain attempts among adolescents in the United States. Society for Adolescent Health and Medicine Annual Meeting, March 2018, Washington, DC.
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- 61. Nagata JM, Carlson JL, Golden NH, Long J, Murray SB, Peebles R. 2019. Comparisons of Bone Density and Body Composition among Adolescents with Anorexia Nervosa and Atypical Anorexia Nervosa. Pediatric Academic Societies Annual Meeting, Baltimore, MD.
- 62. Murray, S. B. The Reproducibility Crisis in Eating Disorder Research. International Invited Body Image Conference, Puerto Vallarta, April 2019.
- 63. Murray, S. B. Bringing Together Novel Directions in Eating Disorder Research. International Invited Body Image Conference, Puerto Vallarta, April 2019.

MEDIA AND TELEVISION APPEARANCES:

2012	Sunrise with Kochie and Mel. Muscle Dysmorphia in Australian Men. Live studio interview. Sydney, Australia
2013	The 7pm Project, Channel 10. <i>Eating Disorders in Men</i> . Live studio discussion. Sydney, Australia
2013	Sky News (UK). Live studio discussion on eating disorders. London, UK.
2013	Al Jazeera English (Malaysia). Live studio discussion of male body image. Sydney, Australia.
2014	Take Part Live, Pivot TV. Live studio discussion of male body image. Los Angeles, CA.
2018	Podcast Interview. <i>Meta Science and Early Career Research</i> . Physiology & Behavior Podcast (Norway/USA).
2018	The Conversation. Anorexia more Stubborn to Treat than Previously Believed, Analysis Shows. San Francisco, CA.
2018	Men's Health Magazine Interview. Why do so Many Men Have Eating Disorders?, USA.
2018	Netflix Documentary. Chasing the Perfect Physique. Los Angeles, CA.
2019	Podcast Interview. <i>The Intricacies of Male Eating Disorders</i> . Full Bloom Podcast (USA).

2019	Podcast Interview. <i>Clinical Trial Reporting in Anorexia Nervosa</i> . Physiology and Behavior Podcast. (USA).
2020	Podcast Interview. <i>Tips for Early Career Researchers</i> . Everything Hertz Podcast. (USA).
2022	Newspaper Interview. Eating Disorders Among Men are More Common Than You May Think. But It's Hard to Find Help. The Philadelphia Inquirer. (USA).
2022	News Interview. Brain Scans Give Clues to Binge Eating Disorder in Young Kids. Consumer Health News Health Day. (USA).
2022	News Interview. How the Brain Differs in Childrens with Binge Eating Disorder. Health Europa. Congleton, UK.
2022	News Interview. <i>Eating Disorders are Different for Men</i> . Consumer Health News Health Day. (USA).
2022	News Interview. USC Experts Discover Brain Differences in Young Children with Binge Eating Disorder. Mirage News. (USA).
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2022	News Interview. Researchers Examine how Age, Sex, Weight and Puberty Were Linked to Disordered Eating in Children. News Medical. (USA).

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2022	News Interview. How Does Disordered Eating Develop in Kids? MedIndia. (India).
2022	News Interview. Children can Develop Eating Disorders Well Before They Become Teenagers, Research Shows. Philly Voice. (USA).
2022	Live News Interview. New Study Reveals More Children are Struggling with Eating Disorders. KTVU-TV (Oakland, CA, USA).
2022	News Interview. Eating Disorders Increasingly Affect Kids as Young as 9. How Parents Talk About Food Matters. Fortune Well. (USA).
2022	News Interview. Eating Disorders Can Begin as Early as Age 9. HealthDay. (USA).
2022	News Coverage. Large-Scale Study of Disordered Eating in Children Explains Role of Weight, Sex and Puberty. Keck School of Medicine News. (Los Angeles, CA, USA).
2023	TV Documentary. Like a Girl. Fuse TV (Los Angeles, CA, USA).
2023	News Coverage. Brain-Based Biomarkers of Eating Disorders in Children. Fox News (San Francisco, CA, USA).
2024	News Coverage. <i>The Rising Prevalence of Eating Disorders</i> . The morning Wave in Busan. (Busan, South Korea).
2024	News Coverage. Inside Looksmaxxing: The Extreme Cosmetic social Media Trend. BBC (United Kingdom).

Exhibit B

Bates Beg	Bates End
TIKTOK3047MDL-054-LARK-0055999	TIKTOK3047MDL-054-LARK-0056027
SNAP3126937	SNAP3126949
23.1. Da. (22.2.)	G17.1.70.4.770.4
SNAP3157225	SNAP3157284
META3047MDL-035-00001346	META3047MDL-035-00001346
MET A 2047 MDI 021 00102154	NATTA 2047N IDL 021 00102150
META3047MDL-031-00193154	META3047MDL-031-00193159
META 2047MDI 021 00170429	META 2047MDL 021 00170427
META3047MDL-031-00170428 META3047MDL-031-00120972	META3047MDL-031-00170437 META3047MDL-031-00120984
META3047MDL-034-00136153	META3047MDL-034-00136163
META3047MDL-031-00121415	META3047MDL-031-00121429
META 2047MDI 021 00121420	META 2047MDL 021 00121441
META3047MDL-031-00121430	META3047MDL-031-00121441
META3047MDL-031-00131309	META3047MDL-031-00131312
META3047MDL-031-00131309 META3047MDL-031-00131639	META3047MDL-031-00131312 META3047MDL-031-00131653
ME1A304/MDL-031-00131039	ME1A304/MDL-031-00131033
META3047MDL-022-00015380	META3047MDL-022-00015395
WIET/1304/WIDE-022-00013300	WILLTASO+7WIDL-022-00013373
META3047MDL-047-01373649	META3047MDL-047-01373650
METRO (MIDE OF OTS 7501)	WILLIAM THIEL OTT GISTSGSO
META3047MDL-031-00265655	META3047MDL-031-00265661
METHOD HADE OUT OUZSTOOD	MB1120 1/M22 021 00202001
META3047MDL-031-00121448	META3047MDL-031-00121456
META3047MDL-035-00005017	META3047MDL-035-00005017
META3047MDL-031-00024886	META3047MDL-031-00024933
META3047MDL-031-00029654	META3047MDL-031-00029706
META3047MDL-035-00002917	META3047MDL-035-00002917
META3047MDL-031-00262845	META3047MDL-031-00262852
META3047MDL-035-00005132	META3047MDL-035-00005146
TIKTOK3047MDL-001-00060817	TIKTOK3047MDL-001-00060872
TIKTOK3047MDL-001-00060862	TIKTOK3047MDL-001-00060917

Bates Beg	Bates End
META3047MDL-031-00265234	META3047MDL-031-00265250
META3047MDL-019-00123373	META3047MDL-019-00123519
META3047MDL-028-00001733	META3047MDL-028-00001742
META3047MDL-031-00246731	META3047MDL-031-00246734
META3047MDL-035-00002651	META3047MDL-035-00002658
TIKTOK3047MDL-001-00057954	TIKTOK3047MDL-001-00058133
11K1OK3047WIDL-001-00037934	TIKTOK304/WDL-001-00038133
META3047MDL-031-00242502	META3047MDL-031-00242504
TIKTOK3047MDL-001-00060814	TIKTOK3047MDL-001-00060830
META3047MDL-014-00356640	META3047MDL-014-00356641
META304/MDL-014-00330040	ME1A304/MDL-014-00330041
META3047MDL-031-00242612	META3047MDL-031-00242616
META3047MDL-003-00053803	META3047MDL-003-00053805
META3047MDL-003-00171018	META3047MDL-003-00171020
WETA3047WDL-003-00171018	WE1A3047WDL-003-00171020
META3047MDL-031-00118103	META3047MDL-031-00118105
META3047MDL-014-00014801	META3047MDL-014-00014803
META3047MDL-035-00002761	META3047MDL-035-00002761
META3047MDL-014-00355558	META3047MDL-014-00355564
META3047MDL-014-00353538 META3047MDL-019-00127577	META3047MDL-014-00353504 META3047MDL-019-00127590
MB11307/MDE-017-0012/3//	MD11150+11115L-017-00121370
META3047MDL-003-00078598	META3047MDL-003-00078599

Bates Beg	Bates End
Dates Deg	Dates End
META3047MDL-003-00169733	META3047MDL-003-00169734
META3047MDL-014-00355284	META3047MDL-014-00355285
META3047MDL-031-00251445	META3047MDL-031-00251446
META3047MDL-003-00078419	META3047MDL-003-00078425
META3047MDL-003-00077939	META3047MDL-003-00077940
MET 4 20 471 (D) 402 00100100	NETT 4 20 457 4574 002 001 001 15
META3047MDL-003-00188109	META3047MDL-003-00188115
META3047MDL-014-00355137	META3047MDL-014-00355138
META304/MDL-014-0033313/	ME1A304/MDL-014-00333138
META3047MDL-031-00255353	META3047MDL-031-00255354
META3047MDL-019-00120925	META3047MDL-019-00120937
METHOUTHUE OF OUTEONES	METRO (MEE 01) 00120/31
META3047MDL-019-00097173	META3047MDL-019-00097173
META3047MDL-003-00186838	META3047MDL-003-00186840
META3047MDL-034-00056779	META3047MDL-034-00056799
META3047MDL-071-00000537	META3047MDL-071-00000600
MET A 2047 MDI 002 0010 < 041	META 2047MDL 002 0010 0007
META3047MDL-003-00186841	META3047MDL-003-00186885
META3047MDL-031-00089407	META3047MDL-031-00089430
META3047MDL-014-00352799	META3047MDL-014-00352802
MIETA304/MIDL-014-00332/99	MIETA304/MIDE-014-00332802
META3047MDL-003-00184585	META3047MDL-003-00184589
1VIL 17130 T / IVILL-003-00104303	1V1L11130T/1V1LL-003-00104307

Bates Beg	Bates End
9	
META3047MDL-083-00000001	META3047MDL-083-00000006
META3047MDL-003-00163233	META3047MDL-003-00163254
META3047MDL-019-00119896	META3047MDL-019-00119896
META3047MDL-003-00030117	META3047MDL-003-00030117
WE1A3047WDL-003-00030117	META304/MDL-003-0003011/
META3047MDL-014-00352250	META3047MDL-014-00352251
META3047MDL-003-00030070	META3047MDL-003-00030071
META3047MDL-003-00029988	META3047MDL-003-00030011
META3047MDL-003-00123666	META3047MDL-003-00123667
SNAP0000103	SNAP000136
51111 0000105	51411 0000150
META3047MDL-003-00161686	META3047MDL-003-00161686
META3047MDL-014-00351807	META3047MDL-014-00351809
Haugen_00010114	Haugen_00010127
Haugen_00005378	Haugen_00005390
META3047MDL-003-00121808	META3047MDL-003-00121810
META3047MDL-015-00000400	META3047MDL-015-00000400
META3047MDL-003-00013254	META3047MDL-003-00013255
N FFF 4 00 4F1 FP4 000 0004 0004	1 (FETT) 20 (FT) (FT) 002 00012000
META3047MDL-003-00012994	META3047MDL-003-00012998
META3047MDL-004-00027398	META3047MDL-004-00027446
MID1713047111DL-004-00027370	ML1713047MIDL-004-00027440
META3047MDL-014-00350817	META3047MDL-014-00350819

Bates Beg	Bates End
META3047MDL-003-00119838	META3047MDL-003-00119840
META3047MDL-003-00071534	META3047MDL-003-00071545
META3047MDL-003-00011697	META3047MDL-003-00011702
ME1A304/MDL-003-0001109/	WE1A304/WDL-003-00011/02
META3047MDL-003-00011760	META3047MDL-003-00011762
META3047MDL-034-00027362	META3047MDL-034-00027403
Haugen_00021096	Haugen_00021143
META3047MDL-035-00007047	META3047MDL-035-00007047
META 2047MDL 002 00150550	META 2047MDL 002 00150566
META3047MDL-003-00159559 TIKTOK3047MDL-001-00060877	META3047MDL-003-00159566 TIKTOK3047MDL-001-00060940
TIKTOK3047MDL-001-00060977	TIKTOK3047MDL-001-00000940 TIKTOK3047MDL-001-00060985
TIKTOK50+/WIDE-001-00000722	11K1 OK3047WDL-001-00000765
META3047MDL-003-00028214	META3047MDL-003-00028219
META3047MDL-014-00350154	META3047MDL-014-00350159
Haugen_00012303	Haugen_00012320
META 2047MDL 010 00022720	META 2047MDL 010 00022540
META3047MDL-019-00022520	META3047MDL-019-00022548
META3047MDL-003-00068860	META3047MDL-003-00068862
SNAP0000137	SNAP0000154
META3047MDL-003-00064697	META3047MDL-003-00064701
META 2047MDL 002 00020010	META 2047MDL 002 00020020
META3047MDL-003-00028019 META3047MDL-031-00084889	META3047MDL-003-00028020 META3047MDL-031-00084917
MIL 1 A304 / MIDL-031-00084889	IVIE I A304/IVIDL-031-0008491/

Bates Beg	Bates End
S	
META3047MDL-003-00042548	META3047MDL-003-00042553
META3047MDL-014-00349432	META3047MDL-014-00349436
METROOT/MDE OT 003 17 132	MET/130 1/MBE 01 1 003 17 130
META3047MDL-014-00349418	META3047MDL-014-00349421
META3047MDL-003-00107197	META3047MDL-003-00107200
Haugen_00015958	Haugen_00016000
Thungon_00013730	Thungen_00010000
Haugen_00019219	Haugen_00019275
META3047MDL-003-00009133	META3047MDL-003-00009134
Haugen_00005458	Haugen_00005869
Thatgen_00003+30	Thaugen_00005007
Haugen_00011969	Haugen_00011983
META3047MDL-003-00157133	META3047MDL-003-00157137
Haugen_00016373	Haugan 00016502
Haugen_00010373	Haugen_00016502
META3047MDL-003-00157020	META3047MDL-003-00157027
META3047MDL-003-00157036	META3047MDL-003-00157037
Haugen 00017263	Haugen 00017300
Haugen 00008207	Haugen 000017300
2200201	220000000000000000000000000000000000000
META3047MDL-003-00103260	META3047MDL-003-00103260
META3047MDL-003-00156702	META3047MDL-003-00156730
META3047MDL-020-00535383	META3047MDL-020-00535400
Haugen_00007481	Haugen_00007503
11445011_00007101	1144501_00007505

Dates Des	Bates End
Bates Beg TIKTOK3047MDL-001-00000622	TIKTOK3047MDL-001-00000690
Haugen_00007350	Haugen_00007465
Haugen_00021247	Haugen_00021281
Titugen_000212+7	Traugen_00021201
META3047MDL-003-00153157	META3047MDL-003-00153160
META3047MDL-003-00153063	META3047MDL-003-00153067
META3047MDL-003-00178333	META3047MDL-003-00178337
META3047MDL-031-00137474	META3047MDL-031-00137489
Hayran 00020125	Houses 00020106
Haugen_00020135 META3047MDL-019-00106590	Haugen_00020196 META3047MDL-019-00106601
WETA3047WDL-019-00100390	WIE1A3047WIDE-019-00100001
Haugen_00023066	Haugen_00023086
META3047MDL-003-00093303	META3047MDL-003-00093304
Haugen_00017069	Haugen_00017176
META3047MDL-035-00002796	META3047MDL-035-00002796
Haugen 00003463	Haugen 00003465
11augen 00005405	11augen 00005405
META3047MDL-003-00178437	META3047MDL-003-00178438
Haugen 00006798	Haugen 00006813
META3047MDL-047-00097321	META3047MDL-047-00097342
Haugen_00020607	Haugen_00020626
META3047MDL-019-00106371	META3047MDL-019-00106390
THE THEOTHER OF THE TOTAL OF THE TENTE OF TH	11211130 17111DE 017 00100370
META3047MDL-003-00089174	META3047MDL-003-00089178
META3047MDL-003-00089107	META3047MDL-003-00089110
Haugen_00024450	Haugen_00024468
META3047MDL-003-00087111	META3047MDL-003-00087117

Bates Beg	Bates End
META3047MDL-020-00588248	META3047MDL-020-00588267
Haugan 00022087	Housen 00022100
Haugen_00023087	Haugen_00023100
META3047MDL-003-00176638	META3047MDL-003-00176657
Haugen_00007055	Haugen_00007062
META3047MDL-003-00043617	META3047MDL-003-00043661
META3047MDL-003-00068863	META3047MDL-003-00068907
Haugen_00024997	Hougan 00025044
Haugen_00024997	Haugen_00025044
META3047MDL-003-00086015	META3047MDL-003-00086016
TIKTOK3047MDL-001-00000215	TIKTOK3047MDL-001-00000256
META3047MDL-003-00146492	META3047MDL-003-00146501
META3047MDL-084-00000400	META3047MDL-084-00000404
META3047MDL-003-00003731	META3047MDL-003-00003732
METIESOT/MEE 003 00003731	ME1130 1/MDE 003 00003732
Haugen_00000797	Haugen_00000882
Haugen_00017177	Haugen_00017237
META3047MDL-031-00048769	META3047MDL-031-00048808
META3047MDL-003-00003188	META3047MDL-003-00003189
WE1A304/WDL-003-00003100	ME1A3047MDE-003-00003187
SNAP0000008	SNAP0000008
Haugen_00021690	Haugen_00021731
TH/TO//2047 / DI 001 00050000	THE TOTAL ACTION DISCOURT
TIKTOK3047MDL-001-00058090	TIKTOK3047MDL-001-00058097
META3047MDL-014-00346869	META3047MDL-014-00346873
TILLIAN HAIDL OIT OUNTOUN	11111111111111111111111111111111111111

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Bates Beg	Bates End
Haugen_00017698	Haugen_00017786
Haugen_0006240	Haugen_0006261
Haugen_00000240	
META3047MDL-003-00146240	META3047MDL-003-00146260
META3047MDL-014-00359270	META3047MDL-014-00359336
TIKTOK3047MDL-001-00000177	TIKTOK3047MDL-001-00000181
Haugen_00008303	Haugen_00008315
Haugen_00002372	Haugen_00002396
Haugen_00000934	Haugen_00000969
META3047MDL-020-00479648	META3047MDL-020-00479656
META3047MDL-003-00082165	META3047MDL-003-00082169
META3047MDL-014-00346525	META3047MDL-014-00346526
Haugen 00023849	Haugen 00023895
Haugen 00016893	Haugen 00016920
Haugen 00001033	Haugen 00001064
GOOG-3047MDL-00204566	GOOG-3047MDL-00204566
TIKTOK3047MDL-024-LARK-00043697	TIKTOK3047MDL-024-LARK-00043699
META3047MDL-003-00170806	META3047MDL-003-00170855

D-4 D	D-4 E1
Bates Beg	Bates End
TIKTOK3047MDL-001-00002975	TIKTOK3047MDL-001-00003039
11K1OK304/MDL-001-00002973	11K1OK304/MDL-001-00003039
Haugen_00003739	Haugen_00003744
Haugen_00003739	Haugen_00003744
Haugen_00017238	Haugen_00017242
Haugen_00002527	Haugen_000017242
Haugen_00007080	Haugen_00007101
Traugen_00007080	
Haugen_00016728	Haugen_00016750
Traugen_00010728	
Haugen_00016699	Haugen_00016716
Haugen_00025741	Haugen_00025764
META3047MDL-003-00000029	META3047MDL-003-00000094
ML17/3047MDL-003-00000027	WILT/1304/WIDL-003-00000074
META3047MDL-003-00001846	META3047MDL-003-00001889
META3047MDL-003-00001640	META3047MDL-003-00001869 META3047MDL-003-00028226
META3047MDL-003-00161881	META3047MDL-003-00161923
META3047MDL-003-00171899	META3047MDL-003-00171923
META3047MDL-020-00535571	META3047MDL-020-00535609
META3047MDL-020-00538452	META3047MDL-020-00538455
MET1130 17 MBE 020 00330 132	ME11130 1/ME1 020 00030 133
SNAP0000001	SNAP0000007
SNAP0000246	SNAP0000253
TIKTOK3047MDL-001-00000769	TIKTOK3047MDL-001-00000802
TIKTOK3047MDL-001-00000813	TIKTOK3047MDL-001-00000817
TIKTOK3047MDL-001-00002375	TIKTOK3047MDL-001-00002376
TIKTOK3047MDL-001-00002937	TIKTOK3047MDL-001-00002980
TIKTOK3047MDL-001-00060811	TIKTOK3047MDL-001-00060816
TIKTOK3047MDL-001-00060941	TIKTOK3047MDL-001-00061214
SNAP7148843	SNAP7148854
META3047MDL-003-00160083	META3047MDL-003-00160085

Bates Beg	Bates End
META3047MDL-003-00160424	META3047MDL-003-00160431
META3047MDL-020-00342154	META3047MDL-020-00342154
META3047MDL-020-00342155	META3047MDL-020-00342155
SNAP5950589	SNAP5950610
TIKTOK3047MDL-001-00061286	TIKTOK3047MDL-001-00061312
TIKTOK3047MDL-004-00122686	TIKTOK3047MDL-004-00122690
TIKTOK3047MDL-015-00341931	TIKTOK3047MDL-015-00342393
TIKTOK3047MDL-015-00342728	TIKTOK3047MDL-015-00342746
TIKTOK3047MDL-015-00343407	TIKTOK3047MDL-015-00343435
TIKTOK3047MDL-015-00343527	TIKTOK3047MDL-015-00343552
TIKTOK3047MDL-016-00351969	TIKTOK3047MDL-016-00351971
TIKTOK3047MDL-056-00964171	TIKTOK3047MDL-056-00964425
TIKTOK3047MDL-060-01110007	TIKTOK3047MDL-060-01110041
TIKTOK3047MDL-060-01158658	TIKTOK3047MDL-060-01158678
TIKTOK3047MDL-069-01206536	TIKTOK3047MDL-069-01206545
TIKTOK3047MDL-115-04352891	TIKTOK3047MDL-115-04352898
GOOG-3047MDL-00000001	GOOG-3047MDL-00000026
META3047MDL-003-00021048	META3047MDL-003-00021069
META3047MDL-003-00028701	META3047MDL-003-00028703
MET 4 00 471 475 4002 0004 4002	N (FFT) 4 20 457 (F) 4 202 202 402 4
META3047MDL-003-00042307	META3047MDL-003-00042311
META 2047MDI 002 00045097	META 2047MDI 002 00045090
META3047MDL-003-00045087	META3047MDL-003-00045089

Bates Beg	Bates End
META3047MDL-003-00045154	META3047MDL-003-00045164
META 2047MDL 002 00052542	META 2047MDL 002 00052544
META3047MDL-003-00053543	META3047MDL-003-00053544
META3047MDL-003-00066361	META3047MDL-003-00066405
METIES WINDE OUS GOODS OF	METHOUTINE 003 00000 103
META3047MDL-003-00071396	META3047MDL-003-00071405
META3047MDL-003-00079909	META3047MDL-003-00079911
META3047MDL-003-00083199	META3047MDL-003-00083222
META 2047MDL 002 0000 6451	META 2047MD1 002 00096465
META3047MDL-003-00086451 META3047MDL-003-00089132	META3047MDL-003-00086465 META3047MDL-003-00089140
META3047MDL-003-00089132 META3047MDL-003-00089141	META3047MDL-003-00089140 META3047MDL-003-00089146
ME17130+7MDE 003 000071+1	WE1713047WDE 003 00005140
META3047MDL-003-00089823	META3047MDL-003-00089824
META3047MDL-003-00095008	META3047MDL-003-00095034
META3047MDL-003-00095993	META3047MDL-003-00096010
META3047MDL-003-00096948	META3047MDL-003-00096991
META3047MDL-003-00106174	META3047MDL-003-00106217
META3047MDL-003-00109173	META3047MDL-003-00109239
META3047MDL-003-00118507	META3047MDL-003-00118522
META3047MDL-003-00120590	META3047MDL-003-00120617
META3047MDL-003-00121726	META3047MDL-003-00121726
META3047MDL-003-00132592	META3047MDL-003-00132636
META3047MDL-003-00132740	META3047MDL-003-00132836
NOTE 1 20 15 NO. 202 201 2 15 2 1	NETT 4 00 451 4514 000 004 045 450 4
META3047MDL-003-00134794	META3047MDL-003-00134796
META3047MDL-003-00144400	META3047MDL-003-00144403
MIL 1 A304 / MIDL-003-00144400	WILL I A304 / WIDL-003-00144403
META3047MDL-003-00144500	META3047MDL-003-00144504
META3047MDL-003-00151869	META3047MDL-003-00151876

Bates Beg	Bates End
META3047MDL-003-00156508	META3047MDL-003-00156512
META3047MDL-003-00156888	META3047MDL-003-00156916
META3047MDL-003-00157185	META3047MDL-003-00157189
META3047MDL-003-00159293	META3047MDL-003-00159296
META3047MDL-003-00175114	META3047MDL-003-00175118
META3047MDL-003-00175961	META3047MDL-003-00175995
META3047MDL-003-00178107	META3047MDL-003-00178131
META3047MDL-003-00178926	META3047MDL-003-00178938
META3047MDL-004-00002225	META3047MDL-004-00002237
META3047MDL-004-00027515	META3047MDL-004-00027533
META3047MDL-005-00000096	META3047MDL-005-00000131
META3047MDL-013-00000612	META3047MDL-013-00000616
META3047MDL-014-00275614	META3047MDL-014-00275614
META3047MDL-031-00246746	META3047MDL-031-00246762
META3047MDL-034-00251794	META3047MDL-034-00251794
META3047MDL-034-00337750	META3047MDL-034-00337759
META3047MDL-037-00007064	META3047MDL-037-00007075
META3047MDL-037-00058094	META3047MDL-037-00058129
META3047MDL-044-00077299	META3047MDL-044-00077299
META3047MDL-047-01197619	META3047MDL-047-01197619
META3047MDL-053-00048552	META3047MDL-053-00048576
META3047MDL-079-00000177	META3047MDL-079-00000272
META3047MDL-087-00030017	META3047MDL-087-00030114
META3047MDL-092-00003365	META3047MDL-092-00003372

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Bates Beg	Bates End
META3047MDL-106-00000004	META3047MDL-106-00000039
META3047MDL-113-00082996	META3047MDL-113-00082998
SNAP0188592	SNAP0188614
SNAP0685579	SNAP0685584
SNAP1831415	SNAP1831415
SNAP1894507	SNAP1894507
SNAP2183204	SNAP2183275
SNAP2519329	SNAP2519335
SNAP2676224	SNAP2676228
SNAP3840584	SNAP3840584
SNAP3843487	SNAP3843488
SNAP4137645	SNAP4137646
SNAP4306791	SNAP4306794
SNAP4416908	SNAP4416914
SNAP4427929	SNAP4427945
SNAP4723815	SNAP4723826
SNAP4911296	SNAP4911298
SNAP4955371	SNAP4955382
GNIA D50504 60	GNA D5050201
SNAP5059169	SNAP5059321

Bates Beg	Bates End
SNAP5123134	SNAP5123165
SNAP5300084	SNAP5300120
SNAP5442338	SNAP5442358
SIVII 3442330	51VII 5442550
SNAP5499098	SNAP5499127
514113133030	51(11 5 1))12)
SNAP5557063	SNAP5557107
SNAP5567580	SNAP5567588
SNAP5573679	SNAP5573690
SNAP5852948	SNAP5852968
SNAP6050928	SNAP6050936
SNAP6110503	SNAP6110505
SNAP6145093	SNAP6145115
TIKTOK3047MDL-060-01155277	TIKTOK3047MDL-060-01155279
TIKTOK3047MDL-060-01160939	TIKTOK3047MDL-060-01160990
TIKTOK3047MDL-060-01160991	TIKTOK3047MDL-060-01161052
SNAP6110234	SNAP6110234

Bates Beg	Bates End
GOOG-3047MDL-05713335	GOOG-3047MDL-05713337
GOOG-3047MDL-05692313	GOOG-3047MDL-05692482
GOOG-3047MDL-04269559	GOOG-3047MDL-04269662
GOOG-3047MDL-05711561	GOOG-3047MDL-05711573
GOOG-3047MDL-05712622	GOOG-3047MDL-05712634
GOOG-3047MDL-02328077	GOOG-3047MDL-02328088
GOOG-3047MDL-02328163	GOOG-3047MDL-02328163
META3047MDL-038-00000234	META3047MDL-038-00000247
GOOG-3047MDL-02194639	GOOG-3047MDL-02194639
GOOG-3047MDL-02185032	GOOG-3047MDL-02185109
GOOG-3047MDL-03526606	GOOG-3047MDL-03526626
GOOG-3047MDL-04585554	GOOG-3047MDL-04585564
TIKTOK3047MDL-023-00636163	TIKTOK3047MDL-023-00636163
TIKTOK3047MDL-023-00715222	TIKTOK3047MDL-023-00715222
GOOG-3047MDL-02938010	GOOG-3047MDL-02938010
GOOG-3047MDL-02937495	GOOG-3047MDL-02937517
GOOG-3047MDL-05704979	GOOG-3047MDL-05705084
GOOG-3047MDL-05705191	GOOG-3047MDL-05705401
GOOG-3047MDL-05710407	GOOG-3047MDL-05710407
TIKTOK3047MDL-016-00344108	TIKTOK3047MDL-016-00344108
SNAP0004800	SNAP0004800
SNAP0004802	SNAP0004802
TIKTOK3047MDL-084-LARK-03068759	TIKTOK3047MDL-084-LARK-03068797
SNAP1285001	SNAP1285079
SNAP1287052	SNAP1287128
GOOG-3047MDL-02172004	GOOG-3047MDL-02172195
META3047MDL-072-00715443	META3047MDL-072-00715443
GOOG-3047MDL-02169773	GOOG-3047MDL-02169798
SNAP2096698	SNAP2096699
GOOG-3047MDL-04605758	GOOG-3047MDL-04605763

Bates Beg	Bates End
Dates Deg	Dates End
GOOG-3047MDL-02324910	GOOG-3047MDL-02324910
0000 30 111102 0232 1710	0000 301711121 0232 1710
GOOG-3047MDL-03596273	GOOG-3047MDL-03596273
GOOG-3047MDL-02442044	GOOG-3047MDL-02442044
GOOG-3047MDL-03359281	GOOG-3047MDL-03359302
GOOG-3047MDL-04703742	GOOG-3047MDL-04703746
GOOG-3047MDL-01785937	GOOG-3047MDL-01785937
GOOG-3047MDL-00442481	GOOG-3047MDL-00442481
GOOG-3047MDL-05101508	GOOG-3047MDL-05101530
GOOG-3047MDL-01342809	GOOG-3047MDL-01342819
GOOG-3047MDL-03277297	GOOG-3047MDL-03277368
SNAP3074358	SNAP3074435
GOOG-3047MDL-01412811	GOOG-3047MDL-01412943
G00G 204FMDL 010FF2250	G00G 2045) FDV 04055365
GOOG-3047MDL-01977358	GOOG-3047MDL-01977365
SNAP4767879	SNAP4767957
GOOG-3047MDL-00780619	GOOG-3047MDL-00780631
GOOG-304/MDL-00/80019	GOOG-304/MDL-00/80031
GOOG-3047MDL-00854334	GOOG-3047MDL-00854362
GOOG-3047MDL-01339056	GOOG-3047MDL-01339106
0000 304/INDE 01337030	0000 3047NIDE 01337100
GOOG-3047MDL-01435767	GOOG-3047MDL-01435767
GOOG-3047MDL-05100478	GOOG-3047MDL-05100482
TIKTOK3047MDL-021-LARK-00014427	TIKTOK3047MDL-021-LARK-00014428
GOOG-3047MDL-04503606	GOOG-3047MDL-04503606
GOOG-3047MDL-02163259	GOOG-3047MDL-02163259
GOOG-3047MDL-03506846	GOOG-3047MDL-03506853
GOOG-3047MDL-00045137	GOOG-3047MDL-00045153
GOOG-3047MDL-00414697	GOOG-3047MDL-00414705

Bates Beg	Bates End
, Duttes Deg	Dutes Lina
GOOG-3047MDL-00808421	GOOG-3047MDL-00808421
GOOG-3047MDL-00012460	GOOG-3047MDL-00012462
GOOG-3047MDL-00408442	GOOG-3047MDL-00408442
GOOG-3047MDL-00411255	GOOG-3047MDL-00411255
GOOG-3047MDL-01922869	GOOG-3047MDL-01922879
TIKTOK3047MDL-058-LARK-00710555	TIKTOK3047MDL-058-LARK-00710564
GOOG-3047MDL-00009463	GOOG-3047MDL-00009472
GOOG-304/MDL-00009403	GOOG-304/MDL-00009472
GOOG-3047MDL-01433964	GOOG-3047MDL-01434072
GOOG-3047MDL-00402820	GOOG-3047MDL-00402820
GOOG-3047MDL-00403435	GOOG-3047MDL-00403435
GOOG-3047MDL-00807297	GOOG-3047MDL-00807297
SNAP3711959	SNAP3712129
GOOG-3047MDL-00865565	GOOG-3047MDL-00865565
GOOG-3047MDL-02436956	GOOG-3047MDL-02436969
GOOG-3047MDL-00213861	GOOG-3047MDL-00213870
0000-304/MDL-00213001	0000-304/MDL-002138/0
GOOG-3047MDL-00647420	GOOG-3047MDL-00647420

Bates Beg	Bates End
GOOG-3047MDL-00665175	GOOG-3047MDL-00665175
SNAP3702950	SNAP3702953
G00G 2045 PD 02504504	G0.0G 20.4F) 4D1 0250.4F11
GOOG-3047MDL-03504706	GOOG-3047MDL-03504711
SNAP2316618	SNAP2316620
TIKTOK3047MDL-044-00839323	TIKTOK3047MDL-044-00839326
TIKTOK3047MDL-072-LARK-01137552	TIKTOK3047MDL-072-LARK-01137556
THE ORSO FINDE OF EARCH OF STATE	TIKTOKSOTTNIDE 072 EARK 01137330
SNAP2316627	SNAP2316665
GOOG-3047MDL-00394672	GOOG-3047MDL-00394681
GOOG-3047MDL-04310272	GOOG-3047MDL-04310278
META3047MDL-047-01205048	META3047MDL-047-01205049
GOOG-3047MDL-00553311	GOOG-3047MDL-00553329
GOOG-3047MDL-05665186.ECM	GOOG-3047MDL-05665207.ECM
TIKTOK3047MDL-006-00326005	TIKTOK3047MDL-006-00326005
G00G 204FMDL 05052204	G0.0G 20.4FLVD1 0505220.6
GOOG-3047MDL-05053396	GOOG-3047MDL-05053396
SNAP1281651 TIKTOK3047MDL-006-00325873	SNAP1281671 TIKTOK3047MDL-006-00325911
TIKTOK3047MDL-000-00323873 TIKTOK3047MDL-006-00327088	TIKTOK3047MDL-006-00323911 TIKTOK3047MDL-006-00327090
TIKTOK3047MDL-000-00327088 TIKTOK3047MDL-006-00327425	TIKTOK3047MDL-000-00327090 TIKTOK3047MDL-006-00327445
TIKTOK3047MDL-000-00327423 TIKTOK3047MDL-056-00952288	TIKTOK3047MDL-000-00327443
THE ORDOTTHIDE 030-00732200	11X1 GIZJOT/IIIDL 030-00/322/1
TIKTOK3047MDL-060-01155581	TIKTOK3047MDL-060-01155594
SNAP2987900	SNAP2987902
TIKTOK3047MDL-007-00327815	TIKTOK3047MDL-007-00327871
SNAP2076002	SNAP2076003
GOOG-3047MDL-03499498	GOOG-3047MDL-03499513

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Bates Beg	Bates End
META3047MDL-039-00000058	META3047MDL-039-00000078
G G G G G L T T T T T G G G G G G G G G	
GOOG-3047MDL-00804080	GOOG-3047MDL-00804100
GOOG-3047MDL-04068497	GOOG-3047MDL-04068505
GOOG-3047MDL-03388306	GOOG-3047MDL-03388319
GOOG-3047MDL-00864164	GOOG-3047MDL-00864164
GOOG-3047MDL-01766902	GOOG-3047MDL-01766904
GOOG-3047MDL-02353923	GOOG-3047MDL-02353923
GOOG-3047MDL-02501314	COOC 2047MDI 02501220
GOOG-304/MDL-02301314	GOOG-3047MDL-02501320
GOOG-3047MDL-00000048	GOOG-3047MDL-00000050
0000 301111122 00000010	0000 3011MBE 0000030
GOOG-3047MDL-00000053	GOOG-3047MDL-00000057
GOOG-3047MDL-00000058	GOOG-3047MDL-00000063
GOOG-3047MDL-00000064	GOOG-3047MDL-00000067
GOOG-3047MDL-00000252	GOOG-3047MDL-00000254
GOOG-3047MDL-00000258	GOOG-3047MDL-00000261
GOOG-3047MDL-00000258 GOOG-3047MDL-00000262	GOOG-3047MDL-00000261 GOOG-3047MDL-00000264
SNAP2311510	SNAP2311519
GOOG-3047MDL-02435420	GOOG-3047MDL-02435420
GOOG-3047MDL-02435441	GOOG-3047MDL-02435441
GOOG-3047MDL-00551136	GOOG-3047MDL-00551136
GOOG-3047MDL-04973896	GOOG-3047MDL-04973896
SNAP3664412	SNAP3664415
GOOG-3047MDL-00117617	GOOG-3047MDL-00117617
GOOG-3047MDL-00803402	GOOG-3047MDL-00803402

Bates Beg	Bates End
GOOG-3047MDL-02313239	GOOG-3047MDL-02313239
N TOTAL 20 457 FDV 0 40 0007 647 6	1 FFF 1 00 15 15 1 0 10 000 5 5 5 20
META3047MDL-040-00056476	META3047MDL-040-00056529
GOOG-3047MDL-00646316	GOOG-3047MDL-00646316
GOOG-3047MDL-00040310	GOOG-3047MDL-00040310
TIKTOK3047MDL-004-00316891	TIKTOK3047MDL-004-00316891
SNAP2926182	SNAP2926192
SNAP2924607	SNAP2924607
GOOG-3047MDL-00898168	GOOG-3047MDL-00898168
SNAP0002558	SNAP0002566
TIKTOK3047MDL-004-00311638	TIKTOK3047MDL-004-00311702
TIKTOK3047MDL-002-00077367	TIKTOK3047MDL-002-00077427
SNAP3652736	SNAP3652813
SNAP5197673	SNAP5197749
TIKTOK3047MDL-067-LARK-00989338	TIKTOK3047MDL-067-LARK-00989
GOOG-3047MDL-01372609	GOOG-3047MDL-01372681
SNAP1251784	SNAP1251785
COOC 2047MDL 02400069	COOC 2047MDL 02400079
GOOG-3047MDL-02499068	GOOG-3047MDL-02499078
SNAP4699129	SNAP4699130
51711 +077127	51(11 +0/)130
GOOG-3047MDL-01453609	GOOG-3047MDL-01453613
GOOG-3047MDL-03906534	GOOG-3047MDL-03906609
GOOG-3047MDL-02144626	GOOG-3047MDL-02144690
TIKTOK3047MDL-021-LARK-00014689	TIKTOK3047MDL-021-LARK-00014692
SNAP2897372	SNAP2897376
SNAP4694745	SNAP4694775
SNAP2896831	SNAP2896834

Bates Beg	Bates End
GOOG-3047MDL-00802141	GOOG-3047MDL-00802148
GOOG-3047MDL-04191118	GOOG-3047MDL-04191125
GOOG-3047MDL-03492168	GOOG-3047MDL-03492367
GN 1 P2 (2 (0 (7	GN 4 PO 50 50 57
SNAP3626065	SNAP3626067
GOOG-3047MDL-00801921	GOOG-3047MDL-00801925
GOOG-3047MDL-00801721 GOOG-3047MDL-04728903	GOOG-3047MDL-00001725 GOOG-3047MDL-04728905
0000 301/MDE 01/20/03	0000 301711122 01720703
SNAP2883624	SNAP2883647
SNAP2043503	SNAP2043504
META3047MDL-072-00704205	META3047MDL-072-00704207
SNAP2298677	SNAP2298691
TIKTOK3047MDL-004-00257578	TIKTOK3047MDL-004-00257579
META3047MDL-065-00240362	META3047MDL-065-00240383
META3047MDL-003-00240362 META3047MDL-031-00131562	META3047MDL-003-00240383 META3047MDL-031-00131572
ML17/304/MDL-031-00131302	WE17430+/WIDE-031-00131372
SNAP0019456	SNAP0019464
SNAP0471925	SNAP0471933
GOOG-3047MDL-00236723	GOOG-3047MDL-00236723
TIKTOK3047MDL-089-03736501	TIKTOK3047MDL-089-03736511
COOC 2047MDL 04242712	GOOG 2047MDL 04242712
GOOG-3047MDL-04343712	GOOG-3047MDL-04343713
TIKTOK3047MDL-017-00361022	TIKTOK3047MDL-017-00361022
SNAP0019241	SNAP0019243
GOOG-3047MDL-03385518	GOOG-3047MDL-03385523
SNAP4679915	SNAP4679966
GOOG-3047MDL-01552207	GOOG-3047MDL-01552210

Bates Beg	Bates End
SNAP0019128	SNAP0019150
SNAP0019153	SNAP0019175
SNAP0019103	SNAP0019125
SNAP0019094	SNAP0019102
TIKTOK3047MDL-004-00141896	TIKTOK3047MDL-004-00141901
GOOG-3047MDL-00547397	GOOG-3047MDL-00547397
TIKTOK3047MDL-099-LARK-04519067	TIKTOK3047MDL-099-LARK-04519099
	0.2.2.20.2.2.2
SNAP0464451	SNAP0464455
TH/TO//2047MDI 002 00100047	TH/TO//2047MDL 002 00100002
TIKTOK3047MDL-002-00100047	TIKTOK3047MDL-002-00100093
GOOG-3047MDL-04882611	GOOG-3047MDL-04882611
SNAP4281401	SNAP4281432
SIVAI 4201401	51VAI 4201432
SNAP2014853	SNAP2014876
GOOG-3047MDL-04495322	GOOG-3047MDL-04495397
TIKTOK3047MDL-002-00091621	TIKTOK3047MDL-002-00091633
TIKTOK3047MDL-078-LARK-01368033	TIKTOK3047MDL-078-LARK-01368036
TIKTOK3047MDL-002-00099983	TIKTOK3047MDL-002-00099989
GOOG-3047MDL-01751480	GOOG-3047MDL-01751481
TIKTOK3047MDL-004-00151118	TIKTOK3047MDL-004-00151124
TIKTOK3047MDL-004-00225450	TIKTOK3047MDL-004-00225457

Bates Beg	Bates End
Dates beg	Dates Eliu
TIKTOK3047MDL-004-00308575	TIKTOK3047MDL-004-00308583
TIKTOK5047WIDL-004-00306373	11K1OK3047MDL-004-00308383
TIKTOK3047MDL-002-00101838	TIKTOK3047MDL-002-00101846
TIKTOK3047MDL-002-00101847	TIKTOK3047MDL 002 00101040 TIKTOK3047MDL-002-00101861
SNAP2857789	SNAP2857822
51411 200 1709	51411 203 / 022
GOOG-3047MDL-04579493	GOOG-3047MDL-04579493
COOC SOTTINGS OF THE STATE OF T	000000171111111111111111111111111111111
GOOG-3047MDL-01749873	GOOG-3047MDL-01749873
GOOG-3047MDL-01206344	GOOG-3047MDL-01206348
TIKTOK3047MDL-002-00083974	TIKTOK3047MDL-002-00083976
META3047MDL-163-00005993	META3047MDL-163-00006014
TIKTOK3047MDL-002-00120082	TIKTOK3047MDL-002-00120083
META3047MDL-050-00215087	META3047MDL-050-00215087
SNAP4798341	SNAP4798353
META3047MDL-047-00977914	META3047MDL-047-00977914
SNAP1284262	SNAP1284292
TIKTOK3047MDL-060-01120905	TIKTOK3047MDL-060-01120917
GOOG-3047MDL-02132875	GOOG-3047MDL-02132890
SNAP1944733	SNAP1944734
SNAP1942575	SNAP1942576
TIKTOK3047MDL-067-LARK-01022641	TIKTOK3047MDL-067-LARK-01022645
TIKTOK3047MDL-056-00987598	TIKTOK3047MDL-056-00987608
TIKTOK3047MDL-078-LARK-01708409	TIKTOK3047MDL-078-LARK-01708409
TIKTOK3047MDL-078-LARK-01708413	TIKTOK3047MDL-078-LARK-01708413
GOOG-3047MDL-00799590	GOOG-3047MDL-00799590
SNAP1219126	SNAP1219127
SNAP1937542	SNAP1937560
TIKTOK3047MDL-024-LARK-00063289	TIKTOK3047MDL-024-LARK-00063303

Bates Beg	Bates End
GOOG-3047MDL-03080564	GOOG-3047MDL-03080699
SNAP4637142	SNAP4637167
TIKTOK3047MDL-002-00091456	TIKTOK3047MDL-002-00091459
63.7.1. Tag (64.6.4	av. 744 404 00
SNAP2268186	SNAP2268198
SNAP0423280	SNAP0423284
SNAP3578884	SNAP3579040
SNAP4630879	SNAP4631035
51VAI 4030077	51VAI 4031033
GOOG-3047MDL-01963802	GOOG-3047MDL-01963804
GOOG-3047MDL-02653013	GOOG-3047MDL-02653018
GOOG-3047MDL-02858727	GOOG-3047MDL-02858757
GOOG-3047MDL-03343214	GOOG-3047MDL-03343250
SNAP1910063	SNAP1910065
TIKTOK3047MDL-002-00087370	TIKTOK3047MDL-002-00087381
TIKTOK3047MDL-002-00119426	TIKTOK3047MDL-002-00119442
GOOG-3047MDL-01289501	GOOG-3047MDL-01289502
SNAP4235758	SNAP4235767
TH/TO//2047 / FDV 002 00110740	TW/TO 1/20 1/71 / DV 002 00110/701
TIKTOK3047MDL-002-00118748	TIKTOK3047MDL-002-00118784
CNIA D0016526	CNIA DO016572
SNAP0016526	SNAP0016572
GOOG-3047MDL-01371725	GOOG-3047MDL-01371752
0000 3041MDE 01371723	GOOG 3047MDE 01371732
GOOG-3047MDL-00798577	GOOG-3047MDL-00798583
2 00,700,7	2 00,70000
GOOG-3047MDL-01288827	GOOG-3047MDL-01288832
META3047MDL-040-00197549	META3047MDL-040-00197549
TIKTOK3047MDL-036-LARK-00150084	TIKTOK3047MDL-036-LARK-00150088
META3047MDL-040-00200757	META3047MDL-040-00200757
TIKTOK3047MDL-023-00658004	TIKTOK3047MDL-023-00658005

Bates Beg	Bates End
3	
SNAP5154720	SNAP5154769
GOOG-3047MDL-02299400	GOOG-3047MDL-02299401
SNAP0716336	SNAP0716367
GOOG-3047MDL-01371645	GOOG-3047MDL-01371645
META3047MDL-034-00504412	META3047MDL-034-00504412
SNAP1234546	SNAP1234597
TIKTOK3047MDL-079-LARK-02066585	TIKTOK3047MDL-079-LARK-02066591
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TIKTOK3047MDL-004-00149154	TIKTOK3047MDL-004-00149184
TIKTOK3047MDL-067-LARK-01026274	TIKTOK3047MDL-067-LARK-01026278
SNAP4227244	SNAP4227246
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GOOG-3047MDL-01989488	GOOG-3047MDL-01989647
SNAP1200316	SNAP1200319
GOOG-3047MDL-00119545	GOOG-3047MDL-00119548

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META3047MDL-040-00200269 META3047MDL-040-00200270 META3047MDL-111-00374934 META3047MDL-011-00374934 TIKTOK3047MDL-036-LARK-00164712 TIKTOK3047MDL-036-LARK-00164716 GOOG-3047MDL-02486605 GOOG-3047MDL-02486605 SNAP0399594 SNAP0399601 SNAP1869405 SNAP1869408 SNAP1869405 SNAP1869408 SNAP0395849 SNAP03954533 SNAP0396891 SNAP0396891 GOOG-3047MDL-00085593 GOOG-3047MDL-00085595 SNAP0396891 SNAP0395891 SNAP04015311 SNAP039684085 SNAP0840796 SNAP0840805 SNAP0398196 SNAP0840805 SNAP0398196 SNAP0398202 TIKTOK3047MDL-010-00329585 TIKTOK3047MDL-010-00329606 TIKTOK3047MDL-002-00091748 TIKTOK3047MDL-002-0009176 GOOG-3047MDL-01735688 GOOG-3047MDL-01735692 SNAP1193165 SNAP1193165 GOOG-3047MDL-00797172 GOOG-3047MDL-00797273 GOOG-3047MDL-01929900 GOOG-3047MDL-02352329 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-002-00101541 TIKTOK3047MDL-007-01280461 TIKTOK3047MDL-007-L	Bates Beg	Bates End
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GOOG-3047MDL-02486605 SNAP0399594 SNAP1869405 SNAP1869408 SNAP3554531 SNAP0396889 GOOG-3047MDL-00085593 GOOG-3047MDL-00085593 SNAP0015311 SNAP0396891 SNAP015311 SNAP0840796 SNAP6398196 TIKTOK3047MDL-010-00329585 TIKTOK3047MDL-010-00329585 TIKTOK3047MDL-010-00329585 TIKTOK3047MDL-002-00091748 TIKTOK3047MDL-002-00091760 TIKTOK3047MDL-01735688 GOOG-3047MDL-01735688 SNAP1193165 GOOG-3047MDL-00797172 GOOG-3047MDL-00797172 GOOG-3047MDL-01929900 SNAP1847822 GOOG-3047MDL-019252329 GOOG-3047MDL-02352329 TIKTOK3047MDL-02352329 TIKTOK3047MDL-02-00101525 TIKTOK3047MDL-02-00101525 TIKTOK3047MDL-002-00101541 TIKTOK3047MDL-067-LARK-01021636 SNAP4209960 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461	META3047MDL-111-00374934	META3047MDL-111-00374934
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\$\text{SNAP0396889}\$ \$\text{GOOG-3047MDL-00085593}\$ \$\text{GOOG-3047MDL-00085595}\$ \$\text{SNAP0015311}\$ \$\text{SNAP0840796}\$ \$\text{SNAP0840805}\$ \$\text{SNAP6398196}\$ \$\text{SNAP6398196}\$ \$\text{TIKTOK3047MDL-010-00329585}\$ \$\text{TIKTOK3047MDL-010-00329585}\$ \$\text{TIKTOK3047MDL-002-00091748}\$ \$\text{TIKTOK3047MDL-002-00091760}\$ \$\text{TIKTOK3047MDL-002-00091761}\$ \$\text{TIKTOK3047MDL-01735688}\$ \$\text{GOOG-3047MDL-01735688}\$ \$\text{GOOG-3047MDL-01735692}\$ \$\text{SNAP1193165}\$ \$\text{GOOG-3047MDL-00797172}\$ \$\text{GOOG-3047MDL-00797172}\$ \$\text{GOOG-3047MDL-00797273}\$ \$\text{GOOG-3047MDL-01929900}\$ \$\text{SNAP1847822}\$ \$\text{GOOG-3047MDL-02352329}\$ \$\text{TIKTOK3047MDL-02352329}\$ \$\text{TIKTOK3047MDL-002-00101525}\$ \$\text{TIKTOK3047MDL-002-00101541}\$ \$\text{TIKTOK3047MDL-067-LARK-01021636}\$ \$\text{SNAP4209960}\$ \$\text{SNAP4209970}\$ \$\text{GOOG-3047MDL-01280461}\$ \$\text{GOOG-3047MDL-01280461}\$ \$\text{GOOG-3047MDL-01280461}\$	SNAP1869405	SNAP1869408
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\$\text{SNAP0015311} \text{SNAP0840796} \text{SNAP0840805} \text{SNAP6398196} \text{SNAP6398202} \text{TIKTOK3047MDL-010-00329585} \text{TIKTOK3047MDL-010-00329606} \text{TIKTOK3047MDL-002-00091748} \text{TIKTOK3047MDL-002-00091760} \text{TIKTOK3047MDL-002-0009176} \text{TIKTOK3047MDL-002-00091776} \text{GOOG-3047MDL-01735688} \text{GOOG-3047MDL-01735692} \text{SNAP1193165} \text{SNAP1193165} \text{GOOG-3047MDL-00797172} \text{GOOG-3047MDL-00797273} \text{GOOG-3047MDL-00797273} \text{GOOG-3047MDL-01280461} \text{GOOG-3047MDL-02352329} \text{GOOG-3047MDL-02352329} \text{TIKTOK3047MDL-02352329} \text{TIKTOK3047MDL-002-00101541} \text{TIKTOK3047MDL-067-LARK-01021636} \text{TIKTOK3047MDL-067-LARK-01021639} \text{SNAP4209970} \text{GOOG-3047MDL-067-LARK-01021639} \text{GOOG-3047MDL-01280461} \t	SNAP0396889	SNAP0396891
\$\text{SNAP0015311}\$ \$\text{SNAP0840796}\$ \$\text{SNAP0840805}\$ \$\text{SNAP6398196}\$ \$\text{TIKTOK3047MDL-010-00329585}\$ \$\text{TIKTOK3047MDL-010-00329585}\$ \$\text{TIKTOK3047MDL-002-00091748}\$ \$\text{TIKTOK3047MDL-002-00091760}\$ \$\text{TIKTOK3047MDL-002-00091761}\$ \$\text{TIKTOK3047MDL-01735688}\$ \$\text{GOOG-3047MDL-01735692}\$ \$\text{SNAP1193165}\$ \$\text{SNAP1193165}\$ \$\text{GOOG-3047MDL-00797172}\$ \$\text{GOOG-3047MDL-00797172}\$ \$\text{GOOG-3047MDL-00797273}\$ \$\text{GOOG-3047MDL-01929900}\$ \$\text{SNAP1847822}\$ \$\text{SNAP1847832}\$ \$\text{GOOG-3047MDL-02352329}\$ \$\text{TIKTOK3047MDL-02352329}\$ \$\text{TIKTOK3047MDL-002-00101525}\$ \$\text{TIKTOK3047MDL-002-00101541}\$ \$\text{TIKTOK3047MDL-067-LARK-01021636}\$ \$\text{SNAP4209960}\$ \$\text{SNAP4209970}\$ \$\text{GOOG-3047MDL-01280461}\$ \$\text{GOOG-3047MDL-01280461}\$ \$\text{GOOG-3047MDL-01280461}\$		
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TIKTOK3047MDL-002-00091761 GOOG-3047MDL-01735688 GOOG-3047MDL-01735692 SNAP1193165 GOOG-3047MDL-00797172 GOOG-3047MDL-00797273 GOOG-3047MDL-01929900 SNAP1847822 GOOG-3047MDL-01929900 SNAP1847822 GOOG-3047MDL-02352329 TIKTOK3047MDL-02352329 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-002-00101541 TIKTOK3047MDL-067-LARK-01021636 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461	TIKTOK3047MDL-010-00329585	TIKTOK3047MDL-010-00329606
GOOG-3047MDL-01735688 SNAP1193165 GOOG-3047MDL-00797172 GOOG-3047MDL-00797273 GOOG-3047MDL-01929900 SNAP1847822 GOOG-3047MDL-02352329 TIKTOK3047MDL-02252329 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-002-00101541 TIKTOK3047MDL-067-LARK-01021636 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461	TIKTOK3047MDL-002-00091748	TIKTOK3047MDL-002-00091760
SNAP1193165 GOOG-3047MDL-00797172 GOOG-3047MDL-00797273 GOOG-3047MDL-01929900 SNAP1847822 GOOG-3047MDL-01929900 SNAP1847832 GOOG-3047MDL-02352329 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-007-LARK-01021636 TIKTOK3047MDL-067-LARK-01021639 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461	TIKTOK3047MDL-002-00091761	TIKTOK3047MDL-002-00091776
SNAP1193165 GOOG-3047MDL-00797172 GOOG-3047MDL-00797273 GOOG-3047MDL-01929900 SNAP1847822 GOOG-3047MDL-01929900 SNAP1847832 GOOG-3047MDL-02352329 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-007-LARK-01021636 TIKTOK3047MDL-067-LARK-01021639 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461		
GOOG-3047MDL-00797172 GOOG-3047MDL-01929900 SNAP1847822 GOOG-3047MDL-01929900 SNAP1847832 GOOG-3047MDL-02352329 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-067-LARK-01021636 TIKTOK3047MDL-067-LARK-01021636 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461		
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SNAP1847822 SNAP1847832 GOOG-3047MDL-02352329 GOOG-3047MDL-02352329 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-002-00101541 TIKTOK3047MDL-067-LARK-01021636 TIKTOK3047MDL-067-LARK-01021639 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461	GOOG-304/MDL-00/9/1/2	GOOG-304/MDL-00/9/2/3
SNAP1847822 SNAP1847832 GOOG-3047MDL-02352329 GOOG-3047MDL-02352329 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-002-00101541 TIKTOK3047MDL-067-LARK-01021636 TIKTOK3047MDL-067-LARK-01021639 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461		
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GOOG-3047MDL-02352329 TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-002-00101541 TIKTOK3047MDL-067-LARK-01021636 TIKTOK3047MDL-067-LARK-01021639 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461		
TIKTOK3047MDL-002-00101525 TIKTOK3047MDL-002-00101541 TIKTOK3047MDL-067-LARK-01021636 TIKTOK3047MDL-067-LARK-01021639 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461		
TIKTOK3047MDL-067-LARK-01021636 SNAP4209960 SNAP4209970 GOOG-3047MDL-01280461 GOOG-3047MDL-01280461		
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GOOG-3047MDL-01280461 GOOG-3047MDL-01280461	11KTOK30+/WIDL-00/-LAKK-01021030	11K1 OKJU4/191DL-00/-LAKK-01021039
GOOG-3047MDL-01280461 GOOG-3047MDL-01280461		
GOOG-3047MDL-01280461 GOOG-3047MDL-01280461	SNAP4209960	SNAP4209970
	MI 1207700	DITE 120//10
	GOOG-3047MDL-01280461	GOOG-3047MDL-01280461
	000000000000000000000000000000000000000	0000 001711102 01200 101
SNAP3528080 SNAP3528084	SNAP3528080	SNAP3528084

Bates Beg	Bates End
GOOG-3047MDL-03706722	GOOG-3047MDL-03706722
GOOG-3047MDL-00542226	GOOG-3047MDL-00542242
META3047MDL-111-00369868	META3047MDL-111-00369868
META3047MDL-136-00013164	META3047MDL-136-00013216
SNAP1186681	SNAP1186684
META3047MDL-040-00199456	META3047MDL-040-00199460
SNAP4189090	SNAP4189191
META3047MDL-072-00376915	META3047MDL-072-00376965
TIKTOK3047MDL-021-LARK-00005593	TIKTOK3047MDL-021-LARK-00005598
TIKTOK3047MDL-021-LARK-00005437	TIKTOK3047MDL-021-LARK-00005441
TIKTOK3047MDL-078-LARK-01429319	TIKTOK3047MDL-078-LARK-01429343
SNAP0419215	SNAP0419217
TIKTOK3047MDL-002-00085753	TIKTOK3047MDL-002-00085791
TIKTOK3047MDL-001-00004654	TIKTOK3047MDL-001-00004669
GOOG-3047MDL-00233489	GOOG-3047MDL-00233503
GOOG-3047MDL-02426813	GOOG-3047MDL-02426813
META3047MDL-031-00115856	META3047MDL-031-00115904
SNAP1806711	SNAP1806724
TIKTOK3047MDL-002-00098058	TIKTOK3047MDL-002-00098071
G00G 004F14F1 00044F0F	G O G O O O O O O O O O O O O O O O O O
GOOG-3047MDL-00816707	GOOG-3047MDL-00816707
GOOG-3047MDL-05040450	GOOG-3047MDL-05040450
GNIA P2727150	GNA D0707170
SNAP2727159	SNAP2727172
SNAP4571055	SNAP4571059
GOOG-3047MDL-03303713	GOOG-3047MDL-03303713
GOOG 2047MDL 01277027	G00G 2047MDL 01277077
GOOG-3047MDL-01275937	GOOG-3047MDL-01275967
GNA P.(110220	GNA D (110022)
SNAP6110229	SNAP6110233

Bates Beg	Bates End
SNAP2221629	SNAP2221664
TIKTOK3047MDL-036-LARK-00172521	TIKTOK3047MDL-036-LARK-00172527
SNAP1175793	SNAP1175822
META3047MDL-136-00013164	META3047MDL-136-00013216
GOOG-3047MDL-02115397	GOOG-3047MDL-02115411
GOOG-3047MDL-02856550	GOOG-3047MDL-02856552
TIKTOK3047MDL-055-LARK-00698648	TIKTOK3047MDL-055-LARK-00698651
SNAP1768432	SNAP1768433
SNAP0350175	SNAP0350179
ON A D12/7520	GNIA D12/7520
SNAP1267538	SNAP1267538
GOOG-3047MDL-01903132	GOOG-3047MDL-01903133
GOOG-304/MDL-01903132	GOOG-304/MDL-01903133
SNAP2713404	SNAP2713405
TIKTOK3047MDL-079-LARK-02079422	TIKTOK3047MDL-079-LARK-02079429
TIKTOK3047MDL-002-00102517	TIKTOK3047MDL-002-00102549
SNAP0000652	SNAP0000653
SNAP0345159	SNAP0345181
TIKTOK3047MDL-079-LARK-02069378	TIKTOK3047MDL-079-LARK-02069384
GOOG 2045 FDL 02205002	GOOG 20471 IDL 02207004
GOOG-3047MDL-02287803	GOOG-3047MDL-02287806
META3047MDL-004-00003255 GOOG-3047MDL-02113187	META3047MDL-004-00003264 GOOG-3047MDL-02113187
GOOG-3047MDL-02113187 GOOG-3047MDL-05659775.ECM	GOOG-3047MDL-02113187 GOOG-3047MDL-05659782.ECM
GOOG-3047MDL-05039773.ECM GOOG-3047MDL-05039951	GOOG-3047MDL-05039782.ECM GOOG-3047MDL-05039951
0000-304/MDL-03037731	GGGG-30 4 /191DL-03037731
SNAP2712883	SNAP2712888
TIKTOK3047MDL-067-LARK-01025176	TIKTOK3047MDL-067-LARK-01025181
TIKTOK3047MDL-004-00226207	TIKTOK3047MDL-004-00226209
GOOG-3047MDL-01719787	GOOG-3047MDL-01719787

Dates Dag	Bates End
Bates Beg	Bates End
SNAP1731042	SNAP1731076
TIKTOK3047MDL-021-LARK-00005510	TIKTOK3047MDL-021-LARK-00005516
11K1OK3047MDL-021-LAKK-00003310	11K1OK304/WIDL-021-LAKK-00003310
SNAP0332716	SNAP0332720
TIKTOK3047MDL-001-00001985	TIKTOK3047MDL-001-00002019
	THE STEE HANDE OUT GOODEN
TIKTOK3047MDL-039-LARK-00214455	TIKTOK3047MDL-039-LARK-00214455
THE OLD THIS OF EATH OF THE	THE ORDON MADE OF EARTH OF THE
GOOG-3047MDL-03705514	GOOG-3047MDL-03705514
SNAP4872383	SNAP4872411
GOOG-3047MDL-03928001	GOOG-3047MDL-03928001
SNAP1718147	SNAP1718156
META3047MDL-072-00318089	META3047MDL-072-00318089
SNAP0010984	SNAP0010986
SNAP1155821	SNAP1155824
TIKTOK3047MDL-010-00329274	TIKTOK3047MDL-010-00329289
TIKTOK3047MDL-010-00329290	TIKTOK3047MDL-010-00329318
SNAP0351938	SNAP0351942
SNAP1155580	SNAP1155584
TIKTOK3047MDL-002-00084410	TIKTOK3047MDL-002-00084415
META3047MDL-046-00239694	META3047MDL-046-00239694
SNAP1152337	SNAP1152337
SNAP0321529	SNAP0321535
SNAP1700500	SNAP1700554
SNAP4525411	SNAP4525430
SNAP4525431	SNAP4525450

Bates Beg	Bates End
2	
GOOG-3047MDL-00794077	GOOG-3047MDL-00794077
META3047MDL-054-00000061	META3047MDL-054-00000070
SNAP0320113	SNAP0320116
GOOG-3047MDL-00874191	GOOG-3047MDL-00874191
TIKTOK3047MDL-039-LARK-00213033	TIKTOK3047MDL-039-LARK-00213037
TIKTOK3047MDL-022-00522549	TIKTOK3047MDL-022-00522549
TIKTOK3047MDL-045-LARK-00457587	TIKTOK3047MDL-045-LARK-00457591
META3047MDL-014-00366232	META3047MDL-014-00366239
META3047MDL-047-00922214	META3047MDL-047-00922218
TIKTOK3047MDL-019-00373603	TIKTOK3047MDL-019-00373603
SNAP0316064	SNAP0316066
TIKTOK3047MDL-045-LARK-00457972	TIKTOK3047MDL-045-LARK-00457974
TIKTOK3047MDL-042-LARK-00264028	TIKTOK3047MDL-042-LARK-00264028
META3047MDL-020-00236842	META3047MDL-020-00236847
TIKTOK3047MDL-004-00131967	TIKTOK3047MDL-004-00132066
META3047MDL-169-00000143	META3047MDL-169-00000264
TIKTOK3047MDL-002-00064418	TIKTOK3047MDL-002-00064428
GOOG-3047MDL-00793501	GOOG-3047MDL-00793501
GOOG-3047MDL-01537774	GOOG-3047MDL-01537774
SNAP1151560	SNAP1151587
GOOG-3047MDL-05214601	GOOG-3047MDL-05214620
META3047MDL-047-01167629	META3047MDL-047-01167748
TIKTOK3047MDL-036-LARK-00111985	TIKTOK3047MDL-036-LARK-00111991
THE TOTAL OF THE T	THE TO LOO AT A TO A COLUMN TO
TIKTOK3047MDL-002-00113213	TIKTOK3047MDL-002-00113232
GOOG-3047MDL-01268284	GOOG-3047MDL-01268284
TIKTOK3047MDL-021-LARK-00014505	TIKTOK3047MDL-021-LARK-00014516

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Bates Beg	Bates End
SNAP1669311	SNAP1669363
META3047MDL-019-00057847	META3047MDL-019-00057851
META3047MDL-020-00137195	META3047MDL-020-00137195
SNAP0455294	SNAP0455297
SNAP0308313	SNAP0308317
SNAP0010269	SNAP0010271
TIKTOK3047MDL-088-03734025	TIKTOK3047MDL-088-03734029
SNAP0307144	SNAP0307149
GOOG-3047MDL-02424452	GOOG-3047MDL-02424456
META3047MDL-037-00016218	META3047MDL-037-00016225
TIKTOK3047MDL-038-LARK-00192083	TIKTOK3047MDL-038-LARK-00192088
SNAP0347522	SNAP0347531
GOOG-3047MDL-01714567	GOOG-3047MDL-01714567
TIKTOK3047MDL-099-LARK-04796954	TIKTOK3047MDL-099-LARK-04796990
GOOG-3047MDL-00995151	GOOG-3047MDL-00995151
SNAP1638832	SNAP1638883
META3047MDL-020-00694412	META3047MDL-020-00694460
NET 4 20 45 NOV. 04 4 0022 C2 C5	NET 4 20 47 NO. 01 4 0022 (27)
META3047MDL-014-00336267	META3047MDL-014-00336270
GN A D2274016	GNIA P2274024
SNAP3374916	SNAP3374934
SNAP2654170	SNAP2654289
TIKTOK3047MDL 002 00072506	TIKTOK3047MDL-010-00329751
TIKTOK3047MDL-002-00073596 TIKTOK3047MDL-004-00131528	TIKTOK3047MDL-002-00073603 TIKTOK3047MDL-004-00131535
11K1 UK3U4/WIDL-UU4-UU131328	11K1 UK3U4 / WIDL-UU4-UU131333
GOOG-3047MDL-00641947	GOOG-3047MDL-00641982
TIKTOK3047MDL-004-1947	TIKTOK3047MDL-004-00310990
111X1 OIX30+/MIDL-004-00310702	111X1 O1XJU+/1V1DL-UU+-UUJ1U77U

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Bates Beg	Bates End
GOOG-3047MDL-03566682	GOOG-3047MDL-03566732
GOOG-3047MDL-01266470	GOOG-3047MDL-01266490
SNAP0009893	SNAP0009894
TIKTOK3047MDL-002-00101348	TIKTOK3047MDL-002-00101355
SNAP4512897	SNAP4512915
GOOG-3047MDL-00792514	GOOG-3047MDL-00792514
GOOG-3047MDL-05456797	GOOG-3047MDL-00772514 GOOG-3047MDL-05456797
3000 304/MDE 03430771	0000 3047MDL 03430777
TIKTOK3047MDL-004-00145020	TIKTOK3047MDL-004-00145032
GOOG-3047MDL-04929304	GOOG-3047MDL-04929324
TIKTOK3047MDL-047-LARK-00510814	TIKTOK3047MDL-047-LARK-00510821
SNAP2192357	SNAP2192366
TIKTOK3047MDL-002-00091546	TIKTOK3047MDL-002-00091558
SNAP2631307	SNAP2631632
GOOG-3047MDL-00687451	GOOG-3047MDL-00687451
META3047MDL-020-00130679	META3047MDL-020-00130685
META3047MDL-019-00099920	META3047MDL-019-00099920
SNAP1117208	SNAP1117208
SNAP0009825	SNAP0009844
GN 4 P1 c010 40	GNA D1 (01242
SNAP1601242	SNAP1601242
META3047MDL-037-00022598	META3047MDL-037-00022599
11111111111111111111111111111111111111	111111111111111111111111111111111111111

Bates Beg	Bates End
META3047MDL-037-00028264	META3047MDL-037-00028270
SNAP3318166	SNAP3318183
51711 5510100	5174 5516165
SNAP3371390	SNAP3371404
SNAP3371421	SNAP3371431
SNAP6471191	SNAP6471199
TIKTOK3047MDL-036-LARK-00181240	TIKTOK3047MDL-036-LARK-00181240
TIKTOK3047MDL-002-00091521	TIKTOK3047MDL-002-00091545
GOOG-3047MDL-02468921	GOOG-3047MDL-02468921
NET 4 20 47 MDL 05 C 00002 CC2	META 2047 MDL 057 00002770
META3047MDL-056-00003662	META3047MDL-056-00003669
TIKTOK3047MDL-002-00077590	TIKTOK3047MDL-002-00077590
TIKTOK3047MDL-002-00077370	TIKTOK3047MDL-002-00077390 TIKTOK3047MDL-004-00147789
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TIKTOK3047MDL-054-LARK-00552309	TIKTOK3047MDL-054-LARK-00552326
META3047MDL-020-00651532	META3047MDL-020-00651533
META3047MDL-040-00049387	META3047MDL-040-00049387
SNAP4486211	SNAP4486215
TIKTOK3047MDL-029-LARK-00091675	TIKTOK3047MDL-029-LARK-00091679
GOOG-3047MDL-02746243	GOOG-3047MDL-02746251
GOOG-3047MDL-04926458	GOOG-3047MDL-04926461
SNAP1103775	SNAP1104028
TIKTOK3047MDL-004-00290064	TIKTOK3047MDL-004-00290065

Bates Beg	Bates End
SNAP0007545	SNAP0007560
GOOG-3047MDL-00170759	GOOG-3047MDL-00170759
TIKTOK3047MDL-004-00151098	TIKTOK3047MDL-004-00151110
GOOG-3047MDL-03704131	GOOG-3047MDL-03704131
SNAP1556755	SNAP1556758
GOOG-3047MDL-00654060	GOOG-3047MDL-00654060
TIKTOK3047MDL-00034000	TIKTOK3047MDL-001-00060323
TIKTOK3047MDL-001-00000515	TIKTOK3047MDL-001-00000323
11K1OK3047WIDL-002-00122131	11K1OK3047MDL-002-00122143
TIKTOK3047MDL-004-00138686	TIKTOK3047MDL-004-00138690
THE ORSO TIMBLE OF TOURSOOD	THE ORSO TABLE OF TOOLSOO
META3047MDL-034-00152676	META3047MDL-034-00152679
SNAP0265413	SNAP0265413
META3047MDL-014-00355780	META3047MDL-014-00355782
META3047MDL-037-00032900	META3047MDL-037-00032937
TIKTOK3047MDL-111-LARK-05912863	TIKTOK3047MDL-111-LARK-05912868
SNAP6934061	SNAP6934064
TIKTOK3047MDL-068-LARK-01057252	TIKTOK3047MDL-068-LARK-01057259
TIKTOK3047MDL-117-04509578	TIKTOK3047MDL-117-04509603

Bates Beg Bates End	
META 2047MDL 014 00074220 META 2047MDL 014 00074247	
META3047MDL-014-00074230 META3047MDL-014-00074247	
SNAP3286213 SNAP3286215	
META 2047MDL 025 00002750	
META3047MDL-035-00002750 META3047MDL-035-00002750	
SNAP3285645 SNAP3285645	
TIKTOK3047MDL-039-LARK-00193617 TIKTOK3047MDL-039-LARK-00193621	
META 2047MDL 070 00000225	
META3047MDL-060-00000335 META3047MDL-060-00000335	
TIKTOK3047MDL-024-LARK-00043038 TIKTOK3047MDL-024-LARK-00043054	
TIKTOK3047MDL-002-00091647 TIKTOK3047MDL-002-00091647	
META3047MDL-062-00000129 META3047MDL-062-00000135	
TIKTOK3047MDL-001-00060308 TIKTOK3047MDL-001-00060312	
META3047MDL-047-00647444 META3047MDL-047-00647444	
GOOG-3047MDL-02097533 GOOG-3047MDL-02097538	
SNAP4009751 SNAP4009756	
TIKTOK3047MDL-004-00138026 TIKTOK3047MDL-004-00138047	
META3047MDL-034-00152702 META3047MDL-034-00152702	
TIKTOK3047MDL-054-LARK-00587949 TIKTOK3047MDL-054-LARK-00587949	
TIKTOK3047MDL-004-00318166 TIKTOK3047MDL-004-00318181	
TIKTOK3047MDL-099-LARK-04759856 TIKTOK3047MDL-099-LARK-04759882	
SNAP0741744 SNAP0741751	
TIKTOK3047MDL-001-00060515 TIKTOK3047MDL-001-00060529	
META3047MDL-163-00007398 META3047MDL-163-00007499	
SNAP2171829 SNAP2171882	
SNAP0270760 SNAP0270778	
META3047MDL-047-01028819 META3047MDL-047-01028842	

Bates Beg	Bates End
TIKTOK3047MDL-038-LARK-00192063	TIKTOK3047MDL-038-LARK-00192067
TIKTOK3047MDL-004-00138339	TIKTOK3047MDL-004-00138345
GOOG-3047MDL-01262144	GOOG-3047MDL-01262144
META3047MDL-031-00133522	META3047MDL-031-00133588
SNAP0007264	SNAP0007299
SNAP2164487	SNAP2164495
SNAP1086844	SNAP1086851
TIKTOK3047MDL-060-01119793	TIKTOK3047MDL-060-01119795
TIKTOK3047MDL-002-00075240	TIKTOK3047MDL-002-00075242
TIKTOK3047MDL-002-00094384	TIKTOK3047MDL-002-00094430
CNIA DO244206	CNIA D0244424
SNAP0244386	SNAP0244434
SNAP3968448 SNAP2162262	SNAP3968726 SNAP2162268
SNAP3251459	SNAP3252025
SNAF3231439	SNAF3232023
SNAP2581635	SNAP2581636
51VAI 2301033	SIVAI 2301030
SNAP2581637	SNAP2581638
2001007	201000
GOOG-3047MDL-05204517	GOOG-3047MDL-05204519
TIKTOK3047MDL-060-01124427	TIKTOK3047MDL-060-01124443
SNAP0015373	SNAP0015405
SNAP0728177	SNAP0728179
GOOG-3047MDL-05204037	GOOG-3047MDL-05204081
TIKTOK3047MDL-024-LARK-00042912	TIKTOK3047MDL-024-LARK-00042950
TIKTOK3047MDL-002-00101574	TIKTOK3047MDL-002-00101612
GOOG-3047MDL-00188446	GOOG-3047MDL-00188446
META3047MDL-040-00229264	META3047MDL-040-00229266

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Bates Beg	Bates End
SNAP0241635	SNAP0241645
SNAP3242221	SNAP3242234
TIKTOK3047MDL-045-LARK-00447874	TIKTOK3047MDL-045-LARK-00447879
GOOG-3047MDL-04798264	GOOG-3047MDL-04798323
SNAP2568676	SNAP2568851
GOOG-3047MDL-02264827	GOOG-3047MDL-02264864
TIKTOK3047MDL-078-LARK-01711316	TIKTOK3047MDL-078-LARK-01711340
META3047MDL-111-00086015	META3047MDL-111-00086026
SNAP2565799	SNAP2565811
GOOG-3047MDL-01258481	GOOG-3047MDL-01258627
GOOG-3047MDL-04918852	GOOG-3047MDL-04918852
SNAP2561579	SNAP2562075
GOOG-3047MDL-02840254	GOOG-3047MDL-02840256
META 2047MDL 140 00001200	META 2047MDI 149 00001279
META3047MDL-148-00001309	META3047MDL-148-00001378
SNAP0746762	SNAP0746774
TIKTOK3047MDL-079-LARK-02008119 TIKTOK3047MDL-002-00102051	TIKTOK3047MDL-079-LARK-02008123 TIKTOK3047MDL-002-00102051
11K1OK304/MDL-002-00102031	11K1OK304/MDL-002-00102031
GOOG-3047MDL-01864482	GOOG-3047MDL-01864491
GOOG-3047MDL-01804482	GOOG-3047/MDL-01804471
META3047MDL-148-00005208	META3047MDL-148-00005234
SNAP0736229	SNAP0736236
META3047MDL-019-00036342	META3047MDL-019-00036342
META3047MDL-072-00319412	META3047MDL-072-00319412
GOOG-3047MDL-01696006	GOOG-3047MDL-01696007
META3047MDL-020-00592294	META3047MDL-020-00592303
GOOG-3047MDL-02631963	GOOG-3047MDL-02631966
TIKTOK3047MDL-004-00286929	TIKTOK3047MDL-004-00286935

Bates Beg	Bates End
SNAP4452586	SNAP4452595
SNAP0750644	SNAP0750646
META3047MDL-020-00278479	META3047MDL-020-00278479
META3047MDL-037-00030033	META3047MDL-037-00030070
GOOG-3047MDL-00000027	GOOG-3047MDL-00000039
META3047MDL-044-00022409	META3047MDL-044-00022436
META3047MDL-019-00036714	META3047MDL-019-00036714
TIKTOK3047MDL-045-LARK-00468321	TIKTOK3047MDL-045-LARK-00468335
META3047MDL-040-00545973	META3047MDL-040-00545973
SNAP0205584	SNAP0205586
SNAP0211828	SNAP0211832
TIKTOK3047MDL-043-00834241	TIKTOK3047MDL-043-00834241
TIKTOK3047MDL-005-00325851	TIKTOK3047MDL-005-00325872
TIKTOK3047MDL-024-LARK-00035705	TIKTOK3047MDL-024-LARK-00035710
META3047MDL-014-00401896	META3047MDL-014-00401907
META3047MDL-020-00005380	META3047MDL-020-00005388
GOOG-3047MDL-03604439	GOOG-3047MDL-03604443
META3047MDL-020-00216683	META3047MDL-020-00216690
META3047MDL-014-00247017	META3047MDL-014-00247019
TIKTOK3047MDL-021-LARK-00026469	TIKTOK3047MDL-021-LARK-00026477
TIKTOK3047MDL-004-00290146	TIKTOK3047MDL-004-00290159
SNAP3210317	SNAP3210318
GOOG-3047MDL-03604113	GOOG-3047MDL-03604116
0000 3017MBE 03001113	0000 201111022 0200 1110
SNAP0005726	SNAP0005731
51111 0005 120	51111 0005751
SNAP0005694	SNAP0005711

Bates Beg	Bates End
SNAP3206770	SNAP3206779
GOOG-3047MDL-02089371	GOOG-3047MDL-02089373
TIKTOK3047MDL-072-LARK-01062915	TIKTOK3047MDL-072-LARK-01062918
SNAP0188573	SNAP0188591
GOOG-3047MDL-01195859	GOOG-3047MDL-01195863
GOOG-304/MDL-01193839	GOOG-304/MDL-01193803
SNAP1047045	SNAP1047165
51711 1047043	51711 1047103
GOOG-3047MDL-03861314	GOOG-3047MDL-03861333
META3047MDL-019-00078581	META3047MDL-019-00078597
SNAP1393050	SNAP1393052
SNAP0996673	SNAP0996673
META3047MDL-138-00000416	META3047MDL-138-00000455
SNAP0397014	SNAP0397025
SNAP0682877	SNAP0682888
META3047MDL-014-00206538	META3047MDL-014-00206544
META504/MDL-014-00200358	META504/MDL-014-00200344
META3047MDL-074-00051929	META3047MDL-074-00051951
SNAP0005508	SNAP0005511
META3047MDL-034-00037237	META3047MDL-034-00037283
META3047MDL-047-00603560	META3047MDL-047-00603565
SNAP6434698	SNAP6434707
GOOG-3047MDL-00671604	GOOG-3047MDL-00671635
META3047MDL-020-00342152	META3047MDL-020-00342153
META3047MDL-020-00588281	META3047MDL-020-00588290
TIKTOK3047MDL-004-00216708	TIKTOK3047MDL-004-00216714
META3047MDL-020-00588060	META3047MDL-020-00588077
SNAP2462286	SNAP2462294

Bates Beg	Bates End
SNAP0677724	SNAP0677743
META3047MDL-020-00342286	META3047MDL-020-00342373
META3047MDL-031-00114544	META3047MDL-031-00114544
SNAP2459988	SNAP2459993
GOOG-3047MDL-01839246	GOOG-3047MDL-01839293
GOOG-3047MDL-02086033	GOOG-3047MDL-02086033
SNAP1000621	SNAP1000634
META3047MDL-053-00007873	META3047MDL-053-00007882
META3047MDL-053-00007843	META3047MDL-053-00007851
TIKTOK3047MDL-001-00000812	TIKTOK3047MDL-001-00000812
SNAP0007318	SNAP0007335
TIKTOK3047MDL-002-00103474	TIKTOK3047MDL-002-00103487
GOOG-3047MDL-00225068	GOOG-3047MDL-00225069
SNAP0506749	SNAP0506762
SNAP0525975	SNAP0525988
SNAP0818696	SNAP0818709
TIKTOK3047MDL-044-00859648	TIKTOK3047MDL-044-00859648
SNAP0525938	SNAP0525947
SNAP0777590	SNAP0777599
SNAP0831964	SNAP0831964
SNAP4416813	SNAP4416907
META3047MDL-020-00340672	META3047MDL-020-00340681
TIKTOK3047MDL-004-00291835	TIKTOK3047MDL-004-00291839
SNAP3182100	SNAP3182128
TIKTOK3047MDL-024-LARK-00026749	TIKTOK3047MDL-024-LARK-00026760

Bates Beg	Bates End
META3047MDL-003-00158816	META3047MDL-003-00158817
META3047MDL-003-00191207	META3047MDL-003-00191217
META3047MDL-163-00001583	META3047MDL-163-00001640
GOOG-3047MDL-02616134	GOOG-3047MDL-02616135
META3047MDL-019-00092508	META3047MDL-019-00092508
META3047MDL-020-00340104	META3047MDL-020-00340107
META3047MDL-014-00054063	META3047MDL-014-00054094
TIKTOK3047MDL-099-LARK-04504706	TIKTOK3047MDL-099-LARK-04504706
META3047MDL-020-00270857	META3047MDL-020-00270858
TIKTOK3047MDL-024-LARK-00026665	TIKTOK3047MDL-024-LARK-00026667
META3047MDL-014-00377295	META3047MDL-014-00377298
META3047MDL-163-00045441	META3047MDL-163-00045570
GOOG-3047MDL-04220318	GOOG-3047MDL-04220318
TIKTOK3047MDL-004-00144763	TIKTOK3047MDL-004-00144764
SNAP1068641	SNAP1068679
TIKTOK3047MDL-054-LARK-00559991	TIKTOK3047MDL-054-LARK-00560027
SNAP3173074	SNAP3173081
SNAP2425354	SNAP2425378
SNAP0945315	SNAP0945322

Bates Beg	Bates End
SNAP0119026	SNAP0119026
META3047MDL-014-00335618	META3047MDL-014-00335619
GOOG-3047MDL-014-00333018	GOOG-3047MDL-014-00333017
META3047MDL-020-00270223	META3047MDL-020-00270223
META3047MDL-050-00004448	META3047MDL-050-00004448
METIES TABLE 33 0000 TTO	METION (MEE 030 0000 FFT0
GOOG-3047MDL-00224480	GOOG-3047MDL-00224480
SNAP0943173	SNAP0943176
SNAP3172386	SNAP3172389
TIKTOK3047MDL-099-LARK-04558012	TIKTOK3047MDL-099-LARK-04558035
META3047MDL-019-00036538	META3047MDL-019-00036588
SNAP0224369	SNAP0224431
TIKTOK3047MDL-004-00323234	TIKTOK3047MDL-004-00323240
META3047MDL-014-00260869	META3047MDL-014-00260876
META3047MDL-040-00544758	META3047MDL-040-00544759
SNAP3168148	SNAP3168150
TIKTOK3047MDL-002-00100441	TIKTOK3047MDL-002-00100462
GOOG-3047MDL-05657463.ECM	GOOG-3047MDL-05657481.ECM
GOOG-3047MDL-02712067	GOOG-3047MDL-02712071
SNAP3167874	SNAP3167940
GOOG-3047MDL-04819374	GOOG-3047MDL-04819374
TIKTOK3047MDL-004-00144753	TIKTOK3047MDL-004-00144755
SNAP2420547	SNAP2420549
META3047MDL-019-00097380	META3047MDL-019-00097389

Bates Beg	Bates End
GOOG-3047MDL-00224027	GOOG-3047MDL-00224027
META3047MDL-034-00078516	META3047MDL-034-00078521
SNAP4773692	SNAP4773696
SNAP0933703	SNAP0933735
SNAP5553072	SNAP5553073
TIKTOK3047MDL-001-00060255	TIKTOK3047MDL-001-00060287
META3047MDL-020-00575591	META3047MDL-020-00575599
SNAP2115818	SNAP2115831
SNAP3503805	SNAP3503821
TIVTOV2047MDL 002 00102220	TIVTOV2047MDI 002 00102220
TIKTOK3047MDL-002-00102328	TIKTOK3047MDL-002-00102328
GOOG-3047MDL-00632685	GOOG-3047MDL-00632689
GOOG-3047MDL-00032083	GOOG-304/MDL-00032089
SNAP3160903	SNAP3160913
SNAP0649519	SNAP0649523
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GOOG-3047MDL-05193958	GOOG-3047MDL-05193959
GOOG-3047MDL-05284976	GOOG-3047MDL-05284976
META3047MDL-020-00711513	META3047MDL-020-00711524
TIKTOK3047MDL-004-00139811	TIKTOK3047MDL-004-00139824
GOOG-3047MDL-02036365	GOOG-3047MDL-02036376
GOOG-3047MDL-04462537	GOOG-3047MDL-04462537
GOOG-3047MDL-04626757	GOOG-3047MDL-04626757

Bates Beg	Bates End
META3047MDL-047-00006815	META3047MDL-047-00006815
SNAP2407226	SNAP2407227
META3047MDL-040-00075210	META3047MDL-040-00075210
SNAP0927309	SNAP0927322
TIKTOK3047MDL-004-00321758	TIKTOK3047MDL-004-00322097
GOOG-3047MDL-04167772	GOOG-3047MDL-04167776
TIKTOK3047MDL-004-00285574	TIKTOK3047MDL-004-00285599
SNAP3811531	SNAP3811543
GOOG-3047MDL-01666532	GOOG-3047MDL-01666535
META3047MDL-040-00337135	META3047MDL-040-00337172
SNAP1185221	SNAP1185322
TIKTOK3047MDL-002-00099764	TIKTOK3047MDL-002-00099831
META3047MDL-053-00053202	META3047MDL-053-00053219
SNAP0652397	SNAP0652397
TIKTOK3047MDL-015-00331402	TIKTOK3047MDL-015-00331402
SNAP6423878	SNAP6423894
SNAP3808814	SNAP3808847
SNAP6423845	SNAP6423877
CNIA D215 (020	CNIA D215 C0 / 1
SNAP3156939 SNAP6108957	SNAP3156941 SNAP6108958
SINAP0108937	SNAP0108938
GOOG-3047MDL-00500385	GOOG-3047MDL-00500393
TIKTOK3047MDL-004-00290586	TIKTOK3047MDL-003-00393
11K1 0K304 / MIDL-004-00270300	11X1OX304711DL-004-00270023
SNAP3155743	SNAP3155744
31 (11 31 31 31 13	D1111 0100111
GOOG-3047MDL-01663615	GOOG-3047MDL-01663615
GOOG-3047MDL-02034241	GOOG-3047MDL-02034241
	L

Pates Pag	Bates End
Bates Beg	Bates End
META3047MDL-019-00016249	META3047MDL-019-00016261
SNAP0649237	SNAP0649237
META3047MDL-019-00064740	META3047MDL-019-00064782
TIKTOK3047MDL-004-00316716	TIKTOK3047MDL-004-00316726
SNAP2394847	SNAP2394848
TIKTOK3047MDL-044-00844575	TIKTOK3047MDL-044-00844577
TIKTOK3047MDL-079-LARK-02017133	TIKTOK3047MDL-079-LARK-02017138
SNAP0092646	SNAP0092650
SNAP0335300	SNAP0335311
TIKTOK3047MDL-004-00290821	TIKTOK3047MDL-004-00290897
TIKTOK3047MDL-022-00522755	TIKTOK3047MDL-022-00522755
SNAP0755817	SNAP0755826
GOOG-3047MDL-02602651	GOOG-3047MDL-02602670
GOOG-3047MDL-03001805	GOOG-3047MDL-03001807
GOOG-3047MDL-00246776	GOOG-3047MDL-00246776
SNAP2109600	SNAP2109616
SNAP0912095	SNAP0912098
SNAP0924794	SNAP0924810
SNAP0087818	SNAP0087820
SNAP3800391	SNAP3800392
TIKTOK3047MDL-004-00139825	TIKTOK3047MDL-004-00139827
TIKTOK3047MDL-004-00314472	TIKTOK3047MDL-004-00314532
SNAP2389358	SNAP2389386
META3047MDL-014-00166515	META3047MDL-014-00166517
SNAP0905847	SNAP0905854
GOOG-3047MDL-01247025	GOOG-3047MDL-01247025
3000 30 1/11DE 012 1/023	0000 00 1/11IDE 012 1/025

Bates Beg	Bates End
GOOG-3047MDL-01654851	GOOG-3047MDL-01654859
META3047MDL-014-00360058	META3047MDL-014-00360058
SNAP0084814	SNAP0084814
META3047MDL-019-00049429	META3047MDL-019-00049461
META3047MDL-020-00260850	META3047MDL-020-00260855
META3047MDL-014-00163784	META3047MDL-014-00163791
GOOG-3047MDL-01653710	GOOG-3047MDL-01653713
META3047MDL-014-00377058	META3047MDL-014-00377104
GOOG-3047MDL-04533875	GOOG-3047MDL-04533881
SNAP0668593	SNAP0668593
SNAP2385816	SNAP2385817
TIKTOK3047MDL-023-00630640	TIKTOK3047MDL-023-00630640
TIKTOK3047MDL-001-00000888	TIKTOK3047MDL-001-00000904
SNAP0737277	SNAP0737334
META3047MDL-004-00025094	META3047MDL-004-00025107
META3047MDL-014-00159841	META3047MDL-014-00159843
META3047MDL-014-00159841	META3047MDL-014-00159843
SNAP2382505	SNAP2382505
META3047MDL-014-00048060	META3047MDL-014-00048071
META3047MDL-004-00013865	META3047MDL-004-00013869
SNAP3793778	SNAP3793858
META3047MDL-014-00156024	META3047MDL-014-00156025
SNAP4388742	SNAP4388746

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Bates Beg	Bates End
GOOG-3047MDL-03715502	GOOG-3047MDL-03715630
SNAP1330007	SNAP1330015
META3047MDL-019-00033465	META3047MDL-019-00033475
META3047MDL-020-00082810	META3047MDL-020-00082810
SNAP3791003	SNAP3791082
GOOG-3047MDL-02250801	GOOG-3047MDL-02250801
META3047MDL-014-00376297	META3047MDL-014-00376305
META3047MDL-014-00376309	META3047MDL-014-00376317
SNAP4837277	SNAP4837299
META3047MDL-014-00152942	META3047MDL-014-00152944
SNAP0896563	SNAP0896563
GOOG-3047MDL-04457555	GOOG-3047MDL-04457560
GOOG-3047MDL-05190031	GOOG-3047MDL-05190040
META3047MDL-037-00058561	META3047MDL-037-00058573
GOOG-3047MDL-05275966	GOOG-3047MDL-05275973
GOOG-3047MDL-00159023	GOOG-3047MDL-00159023
META3047MDL-040-00399876	META3047MDL-040-00399876
GOOG-3047MDL-02794557.C	GOOG-3047MDL-02794566.C
META3047MDL-020-00256107	META3047MDL-020-00256114
SNAP4836937	SNAP4836940
SNAP1322227	SNAP1322242
SNAP1321683	SNAP1321686
GOOG-3047MDL-03305969	GOOG-3047MDL-03305969
META3047MDL-034-00354685	META3047MDL-034-00354694
SNAP0892766	SNAP0892766
SNAP0755683	SNAP0755688
META3047MDL-044-00108564	META3047MDL-044-00108582
SNAP0755697	SNAP0755698
SNAP3784179	SNAP3784183
GOOG-3047MDL-02028788	GOOG-3047MDL-02028788

Bates Beg	Bates End
META3047MDL-014-00298174	META3047MDL-014-00298228
GOOG-3047MDL-02722034	GOOG-3047MDL-02722039
GOOG-3047MDL-01643156	GOOG-3047MDL-01643164
META3047MDL-020-00563113	META3047MDL-020-00563179
GOOG-3047MDL-00488901	GOOG-3047MDL-00488908
META3047MDL-044-00091392	META3047MDL-044-00091392
SNAP3781717	SNAP3781718
META3047MDL-040-00332134	META3047MDL-040-00332136
SNAP0889433	SNAP0889435
SNAP2367515	SNAP2367527
GOOG-3047MDL-00197779	GOOG-3047MDL-00197779
GOOG-3047MDL-04456196	GOOG-3047MDL-04456198
GOOG-3047MDL-03000812	GOOG-3047MDL-03000812
G00G 2045 4DL 0445 4155	G00G 204T IDL 0445(100
GOOG-3047MDL-04456177	GOOG 3047MDL 00107775
GOOG-3047MDL-00197772	GOOG-3047MDL-00197775
GOOG-3047MDL-00080597	GOOG-3047MDL-00080601
GOOG-3047MDL-00080397 GOOG-3047MDL-02027137	GOOG-3047MDL-00080001 GOOG-3047MDL-02027142
SNAP6900119	SNAP6900129
SNAP7307710	SNAP7307721
51711 7507710	514117307721
SNAP0886473	SNAP0886479
GOOG-3047MDL-04455868	GOOG-3047MDL-04455869
GOOG-3047MDL-02787109	GOOG-3047MDL-02787111
GOOG-3047MDL-00197742	GOOG-3047MDL-00197742
GOOG-3047MDL-02204366	GOOG-3047MDL-02204369
META3047MDL-020-00253760	META3047MDL-020-00253818

Bates Beg	Bates End
SNAP0886013	SNAP0886015
GOOG-3047MDL-04455801	GOOG-3047MDL-04455801
GOOG-3047MDL-03856852	GOOG-3047MDL-03856852
SNAP6892932	SNAP6892940
SNAP0884986	SNAP0884987
GOOG-3047MDL-00197735	GOOG-3047MDL-00197737
GOOG-3047MDL-02026373	GOOG-3047MDL-02026374
GOOG-3047MDL-03856819	GOOG-3047MDL-03856820
NET 1 20 15 15 1 0 10 00 50 20 1	N 1575 A 20 453 1534 0 40 00502202
META3047MDL-040-00583291	META3047MDL-040-00583292
META3047MDL-059-00000325	META3047MDL-059-00000335
META3047MDL-005-00000333	META3047MDL-005-00000357
SNAP0541886	SNAP0541886
META3047MDL-014-00071620	META3047MDL-014-00071623
SNAP5486213	SNAP5486215
SNAP4378245	SNAP4378249
SNAP3133152	SNAP3133153
META3047MDL-014-00133717	META3047MDL-014-00133734
SNAP2102892	SNAP2102903
META3047MDL-035-00004529	META3047MDL-035-00004598
META3047MDL-044-00026817	META3047MDL-044-00026905
SNAP0878303	SNAP0878310
SNAP0040771	SNAP0040778
SNAP3129690	SNAP3129699
META3047MDL-005-00000001	META3047MDL-005-00000013
META3047MDL-047-01199274	META3047MDL-047-01199275
GNIA D2120214	CNIA D2120210
SNAP3129214	SNAP3129218
GOOG-3047MDL-03765037	GOOG-3047MDL-03765043
000001111111111111111111111111111111111	000000111111111111111111111111111111111
META3047MDL-022-00006927	META3047MDL-022-00006927
SNAP3126959	SNAP3126962

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Bates Beg	Bates End
GN 4 P012 (022	GNA P010 5005
SNAP3126923	SNAP3126935
GOOG-3047MDL-02022090	GOOG-3047MDL-02022093
SNAP6118652	SNAP6118662
SNAP0640337	SNAP0640342
SNAP0666370	SNAP0666375
META3047MDL-019-00059356	META3047MDL-019-00059356
META3047MDL-019-00059532	META3047MDL-019-00059532
META3047MDL-037-00068917	META3047MDL-037-00068917
SNAP2348639	SNAP2348640
META3047MDL-044-00171345	META3047MDL-044-00171371
SNAP3760712	SNAP3760713
SNAP2346697	SNAP2346698
COOC 2047MDL 00090516	COOC 2047MDL 00090519
GOOG-3047MDL-00080516	GOOG-3047MDL-00080518
SNAP0757877	SNAP0757879
SNAP6411772	SNAP6411826
SNAP2345620	SNAP2345622
COOC 2047MDL 01241020	GOOG-3047MDL-01241039
GOOG-3047MDL-01241038 META3047MDL-004-00000315	META3047MDL-01241039 META3047MDL-004-00000317
GOOG-3047MDL-00767071	GOOG-3047MDL-00767071
SNAP1298915	SNAP1298996
META3047MDL-031-00096208	META3047MDL-031-00096217
GNIA DOOFT (71	GNIA D00577671
SNAP0857671	SNAP0857671
GOOG-3047MDL-00122963	GOOG-3047MDL-00122963
SNAP6110159	SNAP6110160

Bates Beg	Bates End
GOOG-3047MDL-01608261	GOOG-3047MDL-01608261
SNAP4358317	SNAP4358324
META3047MDL-014-00026293	META3047MDL-014-00026296
SNAP3744792	SNAP3744794
SNAP0024870	SNAP0024870
META3047MDL-020-00476530	META3047MDL-020-00476530
META3047MDL-040-00449305	META3047MDL-040-00449316
SNAP3742780	SNAP3742782
META3047MDL-014-00092206	META3047MDL-014-00092207
GOOG-3047MDL-02009802	GOOG-3047MDL-02009802
SNAP4354972	SNAP4354978
SNAP0850987	SNAP0850992
META3047MDL-044-00100788	META3047MDL-044-00100789
GOOG-3047MDL-03714938	GOOG-3047MDL-03714938
GOOG-3047MDL-05025310	GOOG-3047MDL-05025314
SNAP3739123	SNAP3739123
GOOG-3047MDL-05263731	GOOG-3047MDL-05263731
GOOG-3047MDL-00579554	GOOG-3047MDL-00579554
META3047MDL-072-01105909	META3047MDL-072-01105913
META3047MDL-072-01105914	META3047MDL-072-01105922
META3047MDL-034-00385869	META3047MDL-034-00385870
META3047MDL-065-00311801	META3047MDL-065-00311801
SNAP0850116	SNAP0850117
GOOG-3047MDL-01604798	GOOG-3047MDL-01604798
META3047MDL-091-00077741	META3047MDL-091-00077812
GOOG-3047MDL-03929013	GOOG-3047MDL-03929014
GOOG-3047MDL-02001804	GOOG-3047MDL-02001811
GOOG-3047MDL-01603982	GOOG-3047MDL-01603982
META3047MDL-047-00094089	META3047MDL-047-00094119
GOOG-3047MDL-04441419	GOOG-3047MDL-04441423

Bates Beg	Bates End
META3047MDL-072-01394520	META3047MDL-072-01394627
SNAP3118038	SNAP3118073
TIKTOK3047MDL-024-LARK-00043256	TIKTOK3047MDL-024-LARK-00043256
GOOG-3047MDL-00000922	GOOG-3047MDL-00000931
GOOG-3047MDL-00666027	GOOG-3047MDL-00666027
GOOG-3047MDL-00937887	GOOG-3047MDL-00937984
GOOG-304/MDL-0093/88/	0000-304/MDL-0093/984
GOOG-3047MDL-00952609	GOOG-3047MDL-00952610
GOOG-3047MDL-00990013	GOOG-3047MDL-00990015
GOOG-3047MDL-01078823	GOOG-3047MDL-01078827
GOOG-3047MDL-01373290	GOOG-3047MDL-01373290
GOOG-3047MDL-01653327	GOOG-3047MDL-01653335
GOOG-3047MDL-01707652	GOOG-3047MDL-01707657
GOOG-3047MDL-01725085	GOOG-3047MDL-01725091
GOOG-3047MDL-01738317	GOOG-3047MDL-01738318
GOOG-3047MDL-01741439	GOOG-3047MDL-01741444
GOOG-3047MDL-01786683	GOOG-3047MDL-01786696
GOOG-3047MDL-02024105	GOOG-3047MDL-02024106
GOOG-3047MDL-02025298	GOOG-3047MDL-02025298
GOOG-3047MDL-02031811	GOOG-3047MDL-02031811
GOOG-3047MDL-02036500	GOOG-3047MDL-02036511
GOOG-3047MDL-02603564	GOOG-3047MDL-02603564
GOOG 2047MDL 00020161	GOOG 2047MDL 02020171
GOOG 3047MDL 02950442	GOOG 2047MDL 02850442
GOOG 3047MDL 02046497	GOOG-3047MDL-02850443
GOOG-3047MDL-02946487	GOOG-3047MDL-02946501
GOOG 3047MDL 04461233	GOOG 2047MDL 04461218
GOOG-3047MDL-04461233	GOOG-3047MDL-04461318

Potes Pog	Bates End
Bates Beg	Dates End
GOOG-3047MDL-04601837	GOOG-3047MDL-04601868
GOOG-3047MDL-0401857 GOOG-3047MDL-04618585	GOOG-3047MDL-04618585
GOOG-3047MDL-04018383 GOOG-3047MDL-04625648	GOOG-3047MDL-04625648
GOOG-3047MDL-04023048	0000-3047MDL-04023048
GOOG-3047MDL-04683418	GOOG-3047MDL-04683418
GOOG-3047MDL-04683749	GOOG-3047MDL-04683749
GOOG-3047MDL-04922012	GOOG-3047MDL-04922012
GOOG-3047MDL-05096751	GOOG-3047MDL-05096772
GOOG-3047MDL-05712453	GOOG-3047MDL-05712520
3000 3017MBE 03712133	0000 30171NDL 03712320
GOOG-MDL3047-00085593	GOOG-MDL3047-00085595
GOOG-MDL3047-02299400	GOOG-MDL3047-02299401
NET 4 20 47) FD1 01 4 000 4 6 4 6 4	NET 4 20 451 (D) 01 4 000 4 6 45 6
META3047MDL-014-00046464	META3047MDL-014-00046476
NET 4 20 47 MD1 020 0012 (220	NET 4 20 471 4701 020 0012 (C24
META3047MDL-020-00126630	META3047MDL-020-00126634
META3047MDL-020-00208020	META3047MDL-020-00208020
META3047MDL-020-00208021	META3047MDL-020-00208026
META3047MDL-020-00208027	META3047MDL-020-00208027
META3047MDL-020-00340122	META3047MDL-020-00340248
META3047MDL-046-00113377	META3047MDL-046-00113377
META3047MDL-046-00113378	META3047MDL-046-00113378
META3047MDL-073-00000019	META3047MDL-073-00000056
WILL 1730+7 WIDL-073-00000017	WILLIA304/WIDE-0/3-00000030
SNIA D0020040	SN 4 D0020060
SNAP0029949	SNAP0029960 SNAP0172072
SNAP0173071	SNAP0173072
SNAP0173430	SNAP0173446
	23.1. DO 2.2
SNAP0255654	SNAP0255654

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Bates Beg	Bates End
Dates Deg	Dates Enu
SNAP0373208	SNAP0373220
SNAP0467577	SNAP0467580
SNAP0640776	SNAP0640777
SNAP0646353	SNAP0646359
SNAP0745587	SNAP0745588
SNAP0840009	SNAP0840025
SNAP0903271	SNAP0903289
SNAP1098525	SNAP1098532
SNAP1213658	SNAP1213671
SNAP1242891	SNAP1242893
SNAP1303811	SNAP1303823
SNAP1415121	SNAP1415142
SNAP1957460	SNAP1957465
GN 4 P222 41 5 4	GNA P2224155
SNAP2324154	SNAP2324155
SNAP2346647	SNAP2346648
SNAP2346701	SNAP2346702
SNAP2372970	SNAP2372974
SNAP2377455	SNAP2377460
SNAP2894057	SNAP2894064
SNAP3121196	SNAP3121225
SNAP3129584	SNAP3129628
SNAP3151495	SNAP3151503
SNAP3386748	SNAP3386757
SNAP3808780	SNAP3808813
GNIA P2021041	GN/4 P2021042
SNAP3931041	SNAP3931043
SNAP4301491	SNAP4301537
SNAP4383753	SNAP4383754
SNAP4389271	SNAP4389271
SNAP4527267	SNAP4527271
DI 11 11 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DIVINI IUDI DI I

Bates Beg	Bates End
SNAP4838936	SNAP4838936
SNAP5125871	SNAP5125911
SNAP5145629	SNAP5145668
SNAP5182516	SNAP5182536
SNAP5193118	SNAP5193139
SNAP5251965	SNAP5252015
SNAP5269822	SNAP5269866
SNAP5326775	SNAP5326795
SNAP5405366	SNAP5405391
SNAP5447598	SNAP5447616
SNAP5473633	SNAP5473653
SNAP5562636	SNAP5562655
SNAP5950611	SNAP5950611
SNAP5950612	SNAP5950612
SNAP5950613	SNAP5950613
SNAP5950614	SNAP5950614
SNAP6119957	SNAP6119966
SNAP6120291	SNAP6120303
SNAP6157644	SNAP6157649
SNAP6163825	SNAP6163858
SNAP6163859	SNAP6163939
SNAP6182524	SNAP6182535
SNAP6340758	SNAP6340790
SNAP6424511	SNAP6424514
SNAP6550958	SNAP6550999
SNAP6759344	SNAP6759347
SNAP6759364	SNAP6759367
SNAP6759368	SNAP6759370
SNAP6759371	SNAP6759373
SNAP6906160	SNAP6906161
SNAP6916189	SNAP6916193
SNAP7140931	SNAP7140932

Bates Beg	Bates End
SNAP7141013	SNAP7141016
SNAP7341442	SNAP7341450
TIKTOK3047MDL-001-00003427	TIKTOK3047MDL-001-00003461
TIKTOK3047MDL-001-00005690	TIKTOK3047MDL-001-00005697
TIKTOK3047MDL-001-00060349	TIKTOK3047MDL-001-00060362
TIKTOK3047MDL-002-00077113	TIKTOK3047MDL-002-00077140
TIKTOK3047MDL-002-00091657	TIKTOK3047MDL-002-00091667
TIKTOK3047MDL-002-00091798	TIKTOK3047MDL-002-00091805
TIKTOK3047MDL-002-00091857	TIKTOK3047MDL-002-00091865
TIKTOK3047MDL-002-00098195	TIKTOK3047MDL-002-00098227
TIKTOK3047MDL-002-00099913	TIKTOK3047MDL-002-00099924
TIKTOK3047MDL-002-00100415	TIKTOK3047MDL-002-00100425
TIKTOK3047MDL-002-00120866	TIKTOK3047MDL-002-00120899
TIKTOK3047MDL-004-00137151	TIKTOK3047MDL-004-00137163
TIKTOK3047MDL-004-00138978	TIKTOK3047MDL-004-00138978
TIKTOK3047MDL-004-00138994	TIKTOK3047MDL-004-00139009
TIKTOK3047MDL-004-00141926	TIKTOK3047MDL-004-00141931
TIKTOK3047MDL-004-00144498	TIKTOK3047MDL-004-00144530
TIKTOK3047MDL-004-00147649	TIKTOK3047MDL-004-00147661
TIKTOK3047MDL-004-00148774	TIKTOK3047MDL-004-00148838
TIKTOK3047MDL-004-00150774	TIKTOK3047MDL-004-00150775
TIKTOK3047MDL-004-00182071	TIKTOK3047MDL-004-00182075
TIKTOK3047MDL-004-00217059	TIKTOK3047MDL-004-00217082
TIKTOK3047MDL-004-00226215	TIKTOK3047MDL-004-00226215
TIKTOK3047MDL-004-00286777	TIKTOK3047MDL-004-00286780
TIKTOK3047MDL-004-00291668	TIKTOK3047MDL-004-00291703
TIKTOK3047MDL-004-00292376	TIKTOK3047MDL-004-00292384
TIKTOK3047MDL-004-00292408	TIKTOK3047MDL-004-00292419
TIKTOK3047MDL-004-00306861	TIKTOK3047MDL-004-00306886
TIKTOK3047MDL-004-00312958	TIKTOK3047MDL-004-00313005
TIKTOK3047MDL-004-00318099	TIKTOK3047MDL-004-00318136

Bates Beg	Bates End
TIKTOK3047MDL-004-00318462	TIKTOK3047MDL-004-00318467
TIKTOK3047MDL-004-00318402	TIKTOK3047MDL-004-00318407 TIKTOK3047MDL-004-00318974
TIKTOK3047MDL-004-00318974 TIKTOK3047MDL-004-00319782	TIKTOK3047MDL-004-00318974 TIKTOK3047MDL-004-00319800
TIKTOK3047MDL-004-00313782 TIKTOK3047MDL-004-00323281	TIKTOK3047MDL-004-00313800 TIKTOK3047MDL-004-00323281
TIKTOK3047MDL-004-00323281 TIKTOK3047MDL-004-00324091	TIKTOK3047MDL-004-00323281 TIKTOK3047MDL-004-00324107
TIKTOK3047MDL-004-00324091 TIKTOK3047MDL-006-00326007	TIKTOK3047MDL-004-00324107 TIKTOK3047MDL-006-00326007
TIKTOK3047MDL-000-00320007 TIKTOK3047MDL-010-00330011	TIKTOK3047MDL-000-00320007 TIKTOK3047MDL-010-00330021
	TIKTOK3047MDL-010-00330021 TIKTOK3047MDL-016-00351152
TIKTOK3047MDL-016-00351152	
TIKTOK3047MDL-016-00355207	TIKTOK3047MDL-016-00355214
TIKTOK3047MDL-018-00372373	TIKTOK3047MDL-018-00372374
TIVTOV 2047MDI 020 00276005	TIVTOV 2047MDI 020 00277022
TIKTOK3047MDL-020-00376995	TIKTOK3047MDL-020-00377022
TIKTOK3047MDL -020-00433713	TIKTOK3047MDL-020-00433713
TIKTOK3047MDL-021-LARK-00012902	TIKTOK3047MDL-021-LARK-00012907
TIKTOK3047MDL-021-LARK-00013349	TIKTOK3047MDL-021-LARK-00013356
TIKTOK3047MDL-021-LARK-00021837	TIKTOK3047MDL-021-LARK-00021852
TIKTOK3047MDL-024-LARK-00026653	TIKTOK3047MDL-024-LARK-00026653
TIKTOK3047MDL-024-LARK-00042686	TIKTOK3047MDL-024-LARK-00042694
TIKTOK3047MDL-024-LARK-00043068	TIKTOK3047MDL-024-LARK-00043075
TIKTOK3047MDL-024-LARK-00043517	TIKTOK3047MDL-024-LARK-00043518
TIKTOK3047MDL-024-LARK-00058762	TIKTOK3047MDL-024-LARK-00058762
TIKTOK3047MDL-024-LARK-00063580	TIKTOK3047MDL-024-LARK-00063603
TIKTOK3047MDL-029-LARK-00072840	TIKTOK3047MDL-029-LARK-00072849
TIKTOK3047MDL-029-LARK-00079871	TIKTOK3047MDL-029-LARK-00079877
TIKTOK3047MDL-042-LARK-00264958	TIKTOK3047MDL-042-LARK-00264965
TIKTOK3047MDL-042-LARK-00273631	TIKTOK3047MDL-042-LARK-00273651
TIKTOK3047MDL-042-LARK-00283496	TIKTOK3047MDL-042-LARK-00283503
TIKTOK3047MDL-043-00836286	TIKTOK3047MDL-043-00836302
TIKTOK3047MDL-045-LARK-00447779	TIKTOK3047MDL-045-LARK-00447785
TIKTOK3047MDL-046-LARK-00497235	TIKTOK3047MDL-046-LARK-00497242
TIKTOK3047MDL-054-LARK-00590474	TIKTOK3047MDL-054-LARK-00590524
TIKTOK3047MDL-056-00967926	TIKTOK3047MDL-056-00971600
TIKTOK3047MDL-060-01094383	TIKTOK3047MDL-060-01094384
TIKTOK3047MDL-060-01142302	TIKTOK3047MDL-060-01142312
TIKTOK3047MDL-060-01169876	TIKTOK3047MDL-060-01169896
TIKTOK3047MDL-065-LARK-00746787	TIKTOK3047MDL-065-LARK-00746791
TIKTOK3047MDL-065-LARK-00841247	TIKTOK3047MDL-065-LARK-00841253

Datas Dag	Dates End
Bates Beg TIKTOK3047MDL-065-LARK-00868751	Bates End TIKTOK3047MDL-065-LARK-00868752
TIKTOK3047MDL-063-LARK-00868731 TIKTOK3047MDL-068-LARK-01057872	TIKTOK3047MDL-068-LARK-00868732 TIKTOK3047MDL-068-LARK-01057889
TIKTOK3047MDL-003-LARK-01037872	TIKTOK3047MDL-008-LARK-01037889
TIKTOK3047MDL-072-LARK-01123343	TIKTOK3047MDL-072-LARK-01123333
TIKTOK3047MDL-078-LARK-01910040 TIKTOK3047MDL-079-LARK-02019915	TIKTOK3047MDL-079-LARK-02019924
TIKTOK3047MDL-079-LARK-02019913	TIKTOK3047MDL-079-LARK-02725155
TIKTOK3047MDL-080-LARK-02723130	TIKTOK3047MDL-080-LARK-02727124
TIKTOK3047MDL-083-LARK-02926886	TIKTOK3047MDL-083-LARK-02926924
TIKTOK3047MDL-084-LARK-02984005	TIKTOK3047MDL-084-LARK-02984021
TIKTOK3047MDL-084-LARK-03141332	TIKTOK3047MDL-084-LARK-03141335
TIKTOK3047MDL-084-LARK-03172633	TIKTOK3047MDL-084-LARK-03172633
TIKTOK3047MDL-085-03563362	TIKTOK3047MDL-085-03563362
TIKTOK3047MDL-090-LARK-03540110	TIKTOK3047MDL-090-LARK-03540118
TIKTOK3047MDL-090-LARK-03854022	TIKTOK3047MDL-090-LARK-03854038
TIKTOK3047MDL-092-03750324	TIKTOK3047MDL-092-03750326
TIKTOK3047MDL-092-03751620	TIKTOK3047MDL-092-03751620
TIKTOK3047MDL-094-LARK-03983009	TIKTOK3047MDL-094-LARK-03983022
TIKTOK3047MDL-098-04033091	TIKTOK3047MDL-098-04033091
TIKTOK3047MDL-098-04034122	TIKTOK3047MDL-098-04034122
TIKTOK3047MDL-098-04040161	TIKTOK3047MDL-098-04040161
TIKTOK3047MDL-098-04041918	TIKTOK3047MDL-098-04041918
TIKTOK3047MDL-098-04043388	TIKTOK3047MDL-098-04043388
TIKTOK3047MDL-098-04045107	TIKTOK3047MDL-098-04045107
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TIKTOK3047MDL-101-LARK-05146491	TIKTOK3047MDL-101-LARK-05146509
TIKTOK3047MDL-101-LARK-05223785	TIKTOK3047MDL-101-LARK-05223797
TIKTOK3047MDL-111-LARK-06042154	TIKTOK3047MDL-111-LARK-06042195
TIKTOK3047MDL-118-LARK-06076591	TIKTOK3047MDL-118-LARK-06076606
TIKTOK3047MDL-120-LARK-06208410	TIKTOK3047MDL-120-LARK-06208422

Dates Dag	Bates End
Bates Beg	Dates End
TIKTOK3047MDL-128-LARK-06767525	TIKTOK3047MDL-128-LARK-06767535
TIKTOK3047MDL-150-LARK-07285061	TIKTOK3047MDL-150-LARK-07285069
TIKTOK3047MDL-151-LARK-07303693	TIKTOK3047MDL-151-LARK-07303702
TIKTOK3047MDL-153-LARK-07413298	TIKTOK3047MDL-153-LARK-07413313
TIKTOK3047MDL-160-LARK-07431197	TIKTOK3047MDL-160-LARK-07431202
TIKTOK3047MDL-163-04668748	TIKTOK3047MDL-163-04668787
TIKTOK3047MDL-168-04772591	TIKTOK3047MDL-168-04772595
TIKTOK3047MDL-169-LARK-07457744	TIKTOK3047MDL-169-LARK-07457781
TIKTOK3047MDL-186-LARK-08176023	TIKTOK3047MDL-186-LARK-08176250
TIKTOK3047MDL-207-LARK-08711479	TIKTOK3047MDL-207-LARK-08711479
META3047MDL-014-00358776	META3047MDL-014-00358795
META3047MDL-019-00127958	
META3047MDL-047-00573740	META3047MDL-047-00573817
META3047MDL-040-00102898	META3047MDL-040-00103051
GOOG-3047MDL-04848897	GOOG-3047MDL-04848897
GOOG-3047MDL-00157413	GOOG-3047MDL-00157413
GOOG-3047MDL-00187874	GOOG-3047MDL-00187874
TIKTOK3047MDL-036-LARK-00107642	TIKTOK3047MDL-036-LARK-00107649
TIKTOK3047MDL-006-00326148	TIKTOK3047MDL-006-00326195
SNAP3803049	SNAP3803095
SNAP0221370	SNAP0221377
META3047MDL-003-00094811	META3047MDL-003-00094837
TIKTOK3047MDL-018-00361108	TIKTOK3047MDL-018-00361109
SNAP1924968	SNAP1925025
META3047MDL-072-00304285	META3047MDL-072-00304305
GOOG-3047MDL-01625570	GOOG-3047MDL-01625574
META3047MDL-003-00145472	META3047MDL-003-00145474

Bates Beg	Bates End
META3047MDL-003-00171401	META3047MDL-003-00171407
META3047MDL-004-00027423	META3047MDL-004-00027445
META3047MDL-014-00046411	META3047MDL-014-00046423
META3047MDL-014-00378084	META3047MDL-014-00378085
META3047MDL-014-00378779	META3047MDL-014-00378781
META3047MDL-019-00099847	META3047MDL-019-00099847
META3047MDL-020-00349969	META3047MDL-020-00350077
META3047MDL-020-00609932	META3047MDL-020-00609944
META3047MDL-031-00086272	META3047MDL-031-00086290
META3047MDL-040-00317980	META3047MDL-040-00317990
META3047MDL-046-00477173	META3047MDL-046-00477177
META3047MDL-046-00495408	META3047MDL-046-00495409
META3047MDL-050-00331333	META3047MDL-050-00331334
SNAP0006256	SNAP0006260
SNAP0008117	SNAP0008123
SNAP1197331	SNAP1197331
SNAP2294924	SNAP2294926
SNAP2367438	SNAP2367441
SNAP2367515	SNAP2367527
SNAP4783191	SNAP4783201
SNAP4833189	SNAP4833190

Bates Beg	Bates End
GN - D 52000 12	GN 4 D 62000 12
SNAP6399042	SNAP6399043
SNAP7140925	SNAP7140925
51411110723	51(11/110/25
TIKTOK3047MDL-001-00060986	TIKTOK3047MDL-001-00061259
TIKTOK3047MDL-004-00151111	TIKTOK3047MDL-004-00151117
TIKTOK3047MDL-062-01192752	TIKTOK3047MDL-062-01192754
TIKTOK3047MDL-112-04262174	TIKTOK3047MDL-112-04262177
TIKTOK3047MDL-115-04366552	TIKTOK3047MDL-115-04366564
GOOG-3047MDL-01287601	GOOG-3047MDL-01287601
GOOG 2047MDL 01777702	GOOG 2047MDL 01777702
GOOG-3047MDL-01776693	GOOG-3047MDL-01776693
GOOG-3047MDL-02570565	GOOG-3047MDL-02570565
GOOG-304/MDE-023/0303	GOOG-3047WIDL-02370303
GOOG-3047MDL-03304579	GOOG-3047MDL-03304581
000000000000000000000000000000000000000	
GOOG-3047MDL-04613300	GOOG-3047MDL-04613301
GOOG-3047MDL-05710514	GOOG-3047MDL-05710705
SNAP5499098	SNAP5499127
TIKTOK3047MDL-014-00330672	TIKTOK3047MDL-014-00330683
TIKTOK3047MDL-029-LARK-00069953	TIKTOK3047MDL-029-LARK-00069959
TIKTOK3047MDL-042-LARK-00283114	TIKTOK3047MDL-042-LARK-00283142
TIKTOK3047MDL-080-LARK-02552741	TIKTOK3047MDL-080-LARK-02552748
TIZTOV2047MDI 000 I ADV 02471222	TIVTOV2047MDI 000 I ABV 02471227
TIKTOK3047MDL-090-LARK-03471333	TIKTOK3047MDL-090-LARK-03471337
TIKTOK3047MDL-099-LARK-04757966	TIKTOK3047MDL-099-LARK-04757966
TIKTOK3047MDL-111-LARK-05945102 TIKTOK3047MDL-112-04262174	TIKTOK3047MDL-111-LARK-05945107 TIKTOK3047MDL-112-04262177
TIKTOK3047MDL-112-04262174 TIKTOK3047MDL-199-LARK-08546223	TIKTOK3047MDL-112-04202177 TIKTOK3047MDL-199-LARK-08546238
META3047MDL-003-00010950	META3047MDL-003-00010955
MET130T/MIDE 003 00010/30	111111111111111111111111111111111111111

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Bates Beg	Bates End
META3047MDL-003-00022823	META3047MDL-003-00022831
META3047MDL-003-00028181	META3047MDL-003-00028184
META3047MDL-003-00028226	META3047MDL-003-00028226
META3047MDL-003-00028233	META3047MDL-003-00028241
META3047MDL-003-00028296	META3047MDL-003-00028297
META3047MDL-003-00051765	META3047MDL-003-00051766
META3047MDL-003-00068041	META3047MDL-003-00068043
META3047MDL-003-00069904	META3047MDL-003-00069913
META3047MDL-003-00119871	META3047MDL-003-00119872
META3047MDL-003-00120590	META3047MDL-003-00120617
META3047MDL-003-00134688	META3047MDL-003-00134726
META3047MDL-003-00136741	META3047MDL-003-00136744
META3047MDL-003-00137856	META3047MDL-003-00137858
META3047MDL-003-00138057	META3047MDL-003-00138057
META3047MDL-003-00172969	META3047MDL-003-00172970
META3047MDL-003-00181914	META3047MDL-003-00181940
META3047MDL-003-00182185	META3047MDL-003-00182199
META3047MDL-004-00000315	META3047MDL-004-00000317
META3047MDL-014-00017094	META3047MDL-014-00017107
META3047MDL-014-00123522	META3047MDL-014-00123528
META3047MDL-014-00123322 META3047MDL-014-00124729	META3047MDL-014-00123328 META3047MDL-014-00124730
	31. 30121/30
META3047MDL-014-00206538	META3047MDL-014-00206544

Bates Beg	Bates End
META3047MDL-014-00283405	META3047MDL-014-00283406
WE1A304/MDL-014-00283403	ME1A304/MDL-014-00283400
META3047MDL-014-00378425	META3047MDL-014-00378427
META3047MDL-014-00381556	META3047MDL-014-00381557
META3047MDL-019-00059356	META3047MDL-019-00059356
META3047MDL-019-00059532	META3047MDL-019-00059532
META3047MDL-019-00059533	META3047MDL-019-00059533
META3047MDL-020-00000222	META3047MDL-020-00000223
META3047MDL-020-00342152	META3047MDL-020-00342153
WIE1A3047WIDE-020-00342132	WE1A3047WDE-020-00342133
META3047MDL-020-00476530	META3047MDL-020-00476530
META3047MDL-034-00480382	META3047MDL-034-00480391
META3047MDL-040-00317525	META3047MDL-040-00317527
META3047MDL-040-00448558	META3047MDL-040-00448567
META3047MDL-040-00584298	META3047MDL-040-00584303
META3047MDL-040-00586960	META3047MDL-040-00587166
META3047MDL-040-00590304	META3047MDL-040-00590310
META3047MDL-040-00600566	META3047MDL-040-00600570
META3047MDL-047-00603560	META3047MDL-047-00603565
META3047MDL-072-01067292	META3047MDL-072-01067292
META3047MDL-072-01495584	META3047MDL-072-01495588
META3047MDL-113-00004535	META3047MDL-113-00004535
META3047MDL-208-00060751	META3047MDL-208-00060756
	224 D 222 42 42
SNAP0006256	SNAP0006260
SNAP0009893	SNAP0009894
SNAP0010984	SNAP0010986
SNAP0014279	SNAP0014380

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Bates Beg	Bates End
SNAP0019094	SNAP0019102
SNAP0019103	SNAP0019125
SNAP0404262	SNAP0404318
SNAP0649237	SNAP0649237
SNAP0755754	SNAP0755764
SNAP0857671	SNAP0857671
GN 1 D00025 66	GN 4 D00007 66
SNAP0892766	SNAP0892766
SNAP1150462	SNAP1150465
SNAP1130402	SNAP1130403
SNAP1173274	SNAP1173279
SNAP1717337	SNAP1717347
	51 (12 1) 1) 5 ()
SNAP1924968	SNAP1925025
SNAP1971289	SNAP1971311
SNAP2331321	SNAP2331528
SNAP2369002	SNAP2369008
SNAP2382505	SNAP2382505
SNAP3157225	SNAP3157284
GNIA POCCAA10	ON A D2 CC 1415
SNAP3664412	SNAP3664415
SNAP4137715	SNAP4137715
SNAP4620786	SNAP4620786 SNAP4798379
SNAP4798367	SNAP4/903/9
META3047MDL-019-00065054	META3047MDL-019-00065054
171217307711DE-017-00003034	MILITYSOT/MIDE-017-00003034
META3047MDL-047-00765317	META3047MDL-047-00765319
THE THE OTT WOTOST!	11111111111111111111111111111111111111

D . / D	D . / E I
Bates Beg	Bates End
META3047MDL-020-00575591	META3047MDL-020-00575599
META3047MDL-040-00219315	META3047MDL-040-00219316
META3047MDL-004-00026912	META3047MDL-004-00026917
META3047MDL-047-00812745	META3047MDL-047-00812747
META3047MDL-014-00260869	META3047MDL-014-00260876
META3047MDL-014-00335618	META3047MDL-014-00335619
META3047MDL-014-00368069	META3047MDL-014-00368070
META3047MDL-020-00645184	META3047MDL-020-00645221
META3047MDL-020-00691402	META3047MDL-020-00691406
META3047MDL-020-00340104	META3047MDL-020-00340107
META3047MDL-020-00340122	META3047MDL-020-00340248
META3047MDL-003-00009422	META3047MDL-003-00009424
META3047MDL-003-00005644	META3047MDL-003-00005646
META3047MDL-003-00043955	META3047MDL-003-00043957
META3047MDL-003-00027123	META3047MDL-003-00027144
META3047MDL-003-00019206	META3047MDL-003-00019214
META3047MDL-003-00095519	META3047MDL-003-00095528
META3047MDL-003-00101855	
META3047MDL-003-00042307	META3047MDL-003-00042311
META3047MDL-003-00113720	META3047MDL-003-00113735
META3047MDL-003-00105124	META3047MDL-003-00105127
META3047MDL-003-00106114	META3047MDL-003-00106115

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Bates Beg	Bates End
META3047MDL-003-00149146	META3047MDL-003-00149156
META3047MDL-003-00005736	META3047MDL-003-00005737
META3047MDL-003-00157020	META3047MDL-003-00157027
META3047MDL-003-00157138	META3047MDL-003-00157145
META3047MDL-003-00152554	META3047MDL-003-00152562
META3047MDL-003-00156418	META3047MDL-003-00156419
META3047MDL-003-00157036	META3047MDL-003-00157037
META3047MDL-003-00154816	META3047MDL-003-00154817
META3047MDL-003-00101724	META3047MDL-003-00101774
META3047MDL-003-00089636	META3047MDL-003-00089636
META3047MDL-003-00156702	META3047MDL-003-00156730
META3047MDL-003-00091414	META3047MDL-003-00091504
META3047MDL-003-00106174	META3047MDL-003-00106217
META3047MDL-003-00155882	META3047MDL-003-00155883
META3047MDL-014-00048189	META3047MDL-014-00048189
META3047MDL-040-00031943	META3047MDL-040-00031944
META3047MDL-020-00572432	META3047MDL-020-00572441

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Bates Beg	Bates End
META3047MDL-019-00095647	META3047MDL-019-00095652
META3047MDL-050-00172125	META3047MDL-050-00172126
META 2047MDL 001 00024566	META 2047MDL 001 00004566
META3047MDL-091-00024566	META3047MDL-091-00024566
META3047MDL-047-00058006	META3047MDL-047-00058006
METHOUTHER OTT GOODGOOD	MB11B017MB2 017 00030000
META3047MDL-165-00000428	META3047MDL-165-00000430
META3047MDL-020-00591925	META3047MDL-020-00591930
META3047MDL-040-00213905	META3047MDL-040-00213905
META3047MDL-003-00175682	META3047MDL-003-00175686
GOOG-3047MDL-02025299	GOOG-3047MDL-02025299
GOOG-3047MDL-00785297	GOOG-3047MDL-00785300
GOOG-3047MDL-02025747	GOOG-3047MDL-02025749
GOOG-3047MDL-02027137	GOOG-3047MDL-02027142
GOOG-3047MDL-00190187	GOOG-3047MDL-00190187
GOOG-3047MDL-00289637	GOOG-3047MDL-00289637
GOOG-3047MDL-05190031	GOOG-3047MDL-05190040
GOOG 2047NDL 00245740	GOOG 204714DL 00247740
GOOG 2047MDL 00245540	GOOG 2047MDL 00245540
GOOG-3047MDL-00245617 GOOG-3047MDL-00496859	GOOG-3047MDL-00245629 GOOG-3047MDL-00496860
GOOG-3047MDL-00490839 GOOG-3047MDL-00246776	GOOG-3047MDL-00490800 GOOG-3047MDL-00246776
GOOG-3047MDL-00240770	GOOG-3047MDL-002240770 GOOG-3047MDL-00223583
0000 3017MBL 00223303	0000 3017MDE 00223303
GOOG-3047MDL-01668872	GOOG-3047MDL-01668872
GOOG-3047MDL-01527227	GOOG-3047MDL-01527227
GOOG-3047MDL-02098593	GOOG-3047MDL-02098598
GOOG-3047MDL-04652560	GOOG-3047MDL-04652595
GOOG-3047MDL-03464606	GOOG-3047MDL-03464607

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Bates Beg	Bates End
GOOG-3047MDL-00874191	GOOG-3047MDL-00874191
GOOG-3047MDL-00874171 GOOG-3047MDL-04366467	GOOG-3047MDL-00874171 GOOG-3047MDL-04366483
GOOG-3047MDL-04300407 GOOG-3047MDL-01601386	GOOG-3047MDL-04300483 GOOG-3047MDL-01601386
GOOG-3047MDL-01968228	GOOG-3047MDL-01968230
GOOG-3047MDL-04499425	GOOG-3047MDL-04499425
GOOG-3047MDL-00725566	GOOG-3047MDL-00725566
GOOG-3047MDL-05733243	GOOG-3047MDL-05733256
GOOG-3047MDL-01594831	GOOG-3047MDL-01594831
GOOG-3047MDL-01488546	GOOG-3047MDL-01488546
GOOG-3047MDL-00408442	GOOG-3047MDL-00408442
GOOG-3047MDL-01777806	GOOG-3047MDL-01777833
GOOG-3047MDL-00217656	GOOG-3047MDL-00217664

Bates Beg	Bates End
META3047MDL-020-00589181	META3047MDL-020-00589181
META3047MDL-072-00327080	META3047MDL-072-00327096
	WILLTY3047WIDE-072-00327090
META3047MDL-050-00066561	META3047MDL-050-00066597
META3047MDL-050-00215015	META3047MDL-050-00215029
META 2047MDL 050 00220202	META 2047MDL 050 00220400
META3047MDL-050-00239392	META3047MDL-050-00239408
SNAP7421940	SNAP7421976
SNAP7428655	SNAP7428656
SNAP7428962	SNAP7428963
META3047MDL-044-00171345	META3047MDL-044-00171371
META3047MDL-019-00059532	META3047MDL-019-00059532
META3047MDL-034-00480382	META3047MDL-034-00480391
META3047MDL-044-00177104	META3047MDL-044-00177105
META3047MDL-020-00253760	META3047MDL-020-00253818
META3047MDL-044-00091392	META3047MDL-044-00091392
META3047MDL-004-00023267	META3047MDL-004-00023269
META3047MDL-014-00330624	META3047MDL-014-00330625
META3047MDL-003-00051814	META3047MDL-003-00051820
META3047MDL-014-00275614	META3047MDL-014-00275614
TIKTOK3047MDL-004-00294514	TIKTOK3047MDL-004-00294545
TIKTOK3047MDL-004-00318045	TIKTOK3047MDL-004-00318073
TIKTOK3047MDL-060-01143638	TIKTOK3047MDL-060-01143649
TIKTOK3047MDL-081-02351123	TIKTOK3047MDL-081-02351123
TIKTOK3047MDL-177-LARK-07618640	TIKTOK3047MDL-177-LARK-07618649
TIKTOK3047MDL-081-02351723	TIKTOK3047MDL-081-02351723
TIKTOK3047MDL-140-LARK-06994240	TIKTOK3047MDL-140-LARK-06994246
META3047MDL-072-00317597	META3047MDL-072-00317616
TIKTOK3047MDL-078-LARK-01910040	TIKTOK3047MDL-078-LARK-01910048
	32202 2 3.0 2 Mar 019103 10
TIKTOK3047MDL-111-LARK-05945102	TIKTOK3047MDL-111-LARK-05945107

Bates Beg	Bates End
TIKTOK3047MDL-153-LARK-07413298	TIKTOK3047MDL-153-LARK-7413313
TIKTOK3047MDL-160-LARK-07431197	TIKTOK3047MDL-160-LARK-07431202
TIKTOK3047MDL-163-04668748	TIKTOK3047MDL-163-04668787
TIKTOK3047MDL-168-04772591	TIKTOK3047MDL-168-04772595
TIKTOK3047MDL-169-LARK-07457744	TIKTOK3047MDL-169-LARK-07457781
TIKTOK3047MDL-177-LARK-07618640	TIKTOK3047MDL-177-LARK-07618649
TIKTOK3047MDL-186-LARK-08176023	TIKTOK3047MDL-186-LARK-08176250
TIKTOK3047MDL-199-LARK-08546223	TIKTOK3047MDL-199-LARK-08546238
TIKTOK3047MDL-207-LARK-08711479	TIKTOK3047MDL-207-LARK-08711479
SNAP7301586	SNAP7301950

Defendant	Witness	Date	Description
Google	Matt Halprin		Deposition Transcript of Matt Halprin
Google		2/11/2023	Exhibit 1 to Deposition Transcript of
Google	Matt Halprin	2/11/2025	Matt Halprin
Coogie	Trace Traipini	2,11,2020	Exhibit 2 to Deposition Transcript of
Google	Matt Halprin	2/11/2025	Matt Halprin
333813		2, 11, 2020	Exhibit 3 to Deposition Transcript of
Google	Matt Halprin	2/11/2025	Matt Halprin
\mathcal{E}			Exhibit 4 to Deposition Transcript of
Google	Matt Halprin	2/11/2025	Matt Halprin
	•		Exhibit 5 to Deposition Transcript of
Google	Matt Halprin	2/11/2025	Matt Halprin
			Exhibit 6 to Deposition Transcript of
Google	Matt Halprin	2/11/2025	Matt Halprin
			Exhibit 7 to Deposition Transcript of
Google	Matt Halprin	2/11/2025	Matt Halprin
Google	Jyoti Ramnath	11/19/2024	Deposition Transcript of Jyoti Ramnath
			Exhibit 1 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
			Exhibit 2 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
			Exhibit 3 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
			Exhibit 4 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
			Exhibit 5 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
			Exhibit 6 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
			Exhibit 7 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
			Exhibit 8 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
			Exhibit 9 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
a .		4 - 4 - 2 - 2 - 2	Exhibit 10 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
		44400000	Exhibit 11 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
G 1	T 10 1	11/10/2021	Exhibit 12 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath

Defendant	Witness	Date	Description
			Exhibit 13 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
2 3 8 2			Exhibit 14 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
333813		11,10,12021	Exhibit 15 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
33381		11/19/2021	Exhibit 16 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
2 2 2 2 2			Exhibit 17 to Deposition Transcript of
Google	Jyoti Ramnath	11/19/2024	Jyoti Ramnath
Google	James Beser		Deposition Transcripts of James Beser
000810	UMINOS DOSOI	., _, _ 0_0	Exhibit 1 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
2.1.8-1			Exhibit 2 to Deposition Transcript of
Google	James Beser		James Beser
			Exhibit 3 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
8			Exhibit 4 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 5 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
U			Exhibit 6 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 7 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
Ŭ			Exhibit 8 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
_			Exhibit 9 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 10 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 11 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 12 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 13 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 14 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 15 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser

Defendant	Witness	Date	Description
	W-V-V-SS		Exhibit 16 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
doogic	Junes Beser	4/2/2023	Exhibit 17 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
Google	James Deser	4/2/2023	
Google	James Beser	4/2/2025	Exhibit 18 to Deposition Transcript of James Beser
Google	James Desei	4/2/2023	
C 1-	I D	4/2/2025	Exhibit 19 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
G 1	T D	4/2/2025	Exhibit 20 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 21 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 22 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 23 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 24 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 25 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 26 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 27 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 28 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 29 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 30 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
<i>U</i>			Exhibit 31 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 32 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
300810	Valido Bosol	1/2/2023	Exhibit 33 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
Jougic	Junes Deser	7/2/2023	Exhibit 34 to Deposition Transcript of
Googla	James Beser	1/2/2025	James Beser
Google	James Desei	4/2/2023	
Coogla	Jamas Dasar	4/2/2025	Exhibit 35 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser

Defendant	Witness	Date	Description
			Exhibit 36 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 37 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
			Exhibit 38 to Deposition Transcript of
Google	James Beser	4/2/2025	James Beser
Google	James Beser	4/3/2025	Deposition Transcripts of James Beser
_			Exhibit 39 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 40 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 41 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 42 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 43 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 44 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 45 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 46 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 47 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 48 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 49 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 50 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
a .			Exhibit 51 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 52 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
G 1		4/2/2027	Exhibit 53 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
G .		4/2/202=	Exhibit 54 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
G 1	I D	4/2/2027	Exhibit 55 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser

Defendant	Witness	Date	Description
			Exhibit 56 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 57 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 58 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 59 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 60 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 61 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 62 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 63 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 64 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 65 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 66 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 67 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 68 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 69 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Exhibit 70 to Deposition Transcript of
Google	James Beser	4/3/2025	James Beser
			Deposition Transcript of James Beser
Google	James Beser	4/9/2025	30)(b)(6)
			Exhibit 1 to Deposition Transcript of
Google	James Beser	4/9/2025	James Beser 30(b)(6)
G 1		4 (2 (2 2 2 2 2	Exhibit 2 to Deposition Transcript of
Google	James Beser	4/9/2025	James Beser 30(b)(6)
		4 10 12 00 =	Exhibit 3 to Deposition Transcript of
Google	James Beser	4/9/2025	James Beser 30(b)(6)
G 1		4 (2 (2 2 2 2 2	Exhibit 4 to Deposition Transcript of
Google	James Beser	4/9/2025	James Beser 30(b)(6)

Defendant	Witness	Date	Description
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Exhibit 5 to Deposition Transcript of
Google	James Beser	4/9/2025	James Beser 30(b)(6)
23381	Valida Besti	, 2020	
Google	Sharon Stovezky	12/11/2024	Deposition Transcript of Sharon Stovezky
	1		Exhibit 1 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
	j		Exhibit 2 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
	,		Exhibit 3 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
Ū	·		Exhibit 4 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 5 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
	·		Exhibit 6 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
_			Exhibit 7 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 8 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 9 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 10 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 11 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 12 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 13 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 14 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 15 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 16 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 17 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
			Exhibit 18 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky

Defendant	Witness	Date	Description
			Exhibit 19 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
	·		Exhibit 20 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
_			Exhibit 21 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
_			Exhibit 22 to Deposition Transcript of
Google	Sharon Stovezky	12/11/2024	Sharon Stovezky
Google	Jessica Dzuban	2/26/2025	Deposition Transcript of Jessica Dzuban
_			Exhibit 1 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 2 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 3 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 4 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 5 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 6 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 7 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 8 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 9 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 10 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 12 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 13 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
			Exhibit 14 to Deposition Transcript of
Google	Jessica Dzuban	2/26/2025	Jessica Dzuban
Google	Garth Graham	3/5/2025	Deposition Transcript of Garth Graham
			Exhibit 1 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 2 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham

Defendant	Witness	Date	Description
			Exhibit 3 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 4 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 5 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 6 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 7 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 8 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
_			Exhibit 9 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
_			Exhibit 10 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 11 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 12 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 13 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 14 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 15 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 16 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 17 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 18 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 19 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 20 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 21 to Deposition Transcript of
Google	Garth Graham	3/5/2025	Garth Graham
			Exhibit 22 to Deposition Transcript of
Google	Garth Graham		Garth Graham
Meta	Adam Mosseri	3/17/2025	Deposition Transcript of Adam Mosseri

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 1 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
Wieta	Additi Wossett	3/11/2023	
Meta	Adam Mosseri	2/17/2025	Exhibit 2 to Deposition Transcript of Adam Mosseri
Meta	Addit Wossett	3/11/2023	
Meta	Adam Mosseri	2/17/2025	Exhibit 3 to Deposition Transcript of Adam Mosseri
Wieta	Additi Wossett	3/11/2023	
Meta	Adam Mosseri	2/17/2025	Exhibit 4 to Deposition Transcript of Adam Mosseri
Wicia	Additi Wossett	3/11/2023	Exhibit 5 to Deposition Transcript of
Meta	Adam Mosseri	2/17/2025	Adam Mosseri
Meta	Adam Wossen	3/11/2023	
Meta	Adam Mosseri	2/17/2025	Exhibit 6 to Deposition Transcript of Adam Mosseri
Meta	Adam Wossen	3/11/2023	
Meta	Adam Mosseri	2/17/2025	Exhibit 7 to Deposition Transcript of Adam Mosseri
Meta	Adam Wossen	3/11/2023	
Meta	Adam Mosseri	2/17/2025	Exhibit 8 to Deposition Transcript of Adam Mosseri
Meta	Adam Wossen	3/11/2023	
Meta	Adam Mosseri	2/17/2025	Exhibit 9 to Deposition Transcript of Adam Mosseri
Meta	Adam Wossen	3/11/2023	
Meta	Adam Mosseri	2/17/2025	Exhibit 10 to Deposition Transcript of Adam Mosseri
IVICIA	Addit Wossett	3/11/2023	
Meta	Adam Mosseri	2/17/2025	Exhibit 11 to Deposition Transcript of Adam Mosseri
Wieta	Additi Wossett	3/11/2023	
Meta	Adam Mosseri	3/17/2025	Exhibit 12 to Deposition Transcript of Adam Mosseri
IVICia	Adam Wossen	3/11/2023	Exhibit 13 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
Ivicia	Adam Wossen	3/11/2023	Exhibit 14 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
Ivicia	Adam Wossen	3/11/2023	Exhibit 15 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
Wicta	Additi Wossett	3/11/2023	Exhibit 16 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
Wicta	Additi WOSSCII	3/11/2023	Exhibit 17 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
141014	Addin WOSSCII	3/11/2023	Exhibit 18 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
1/10:0	11000011	3/11/2023	Exhibit 19 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
1/10:0	1 Iddin 1/1000011	5/11/2023	Exhibit 20 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
141014	Additi MOSSCII	3/11/2023	11000011

Defendant	Witness	Date	Description
			Exhibit 21 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 22 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 23 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 24 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 25 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 26 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 27 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 28 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 29 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 30 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 31 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 32 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 33 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 34 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
			Exhibit 35 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
		045000	Exhibit 36 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
.		2/17/2027	Exhibit 37 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
24	A 1 - 3/5 ·	2/17/2025	Exhibit 38 to Deposition Transcript of
Meta	Adam Mosseri	3/1//2025	Adam Mosseri
Mat-	A done Mar	2/17/2025	Exhibit 39 to Deposition Transcript of
Meta	Adam Mosseri	3/1//2025	Adam Mosseri
Mata	A dome Magazza	2/17/2025	Exhibit 40 to Deposition Transcript of
Meta	Adam Mosseri	3/11/2025	Adam Mosseri

Defendan	t Witness	Date	Description
	V IOIICSS		Exhibit 41 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
111010	Traditi (Tobbeti	0/1//2020	Exhibit 42 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
1v10ta	Tiddiii 1v10bbell	3/17/2023	Exhibit 43 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
Ivieta	Tiddiii Wossell	3/17/2023	Exhibit 44 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
Iviota	Tiddiii Wooseli	3/17/2023	Exhibit 45 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
141014	radiii wossen	3/11/2023	Exhibit 46 to Deposition Transcript of
Meta	Adam Mosseri	3/17/2025	Adam Mosseri
Meta	Adam Mosseri		Deposition Transcript of Adam Mosseri
Wicta	Tiddiii Wooseli	3/10/2023	Exhibit 47 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
1v10ta	Tiddiii Wooseli	3/10/2023	Exhibit 48 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
1,1014	Traditi (Tobbeti	2/10/2022	Exhibit 49 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
1,1014	Traditi (Viologia)	0/10/2020	Exhibit 50 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
111000	1100111111000011	0,10,2020	Exhibit 51 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 52 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 53 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 54 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 55 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 56 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 57 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 58 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 59 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 60 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri

Defendant	Witness	Date	Description
			Exhibit 61 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 62 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 63 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 64 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 65 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 66 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 67 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 68 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 69 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 70 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 71 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
		242422	Exhibit 72 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
		242422	Exhibit 73 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
3.6		2/10/2025	Exhibit 74 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
3.6		2/10/2025	Exhibit 75 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
3.6		2/10/2025	Exhibit 76 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
3.6	4.1 3.5	2/10/2027	Exhibit 77 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
N. f	A 1 3 5 .	0/10/0005	Exhibit 78 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
M-4-	A .l M	2/10/2025	Exhibit 79 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
M-4-	A dama M	2/10/2025	Exhibit 80 to Deposition Transcript of
Meta	Adam Mosseri	5/18/2025	Adam Mosseri

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 81 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
Wicta	Adam Wossen	3/16/2023	Exhibit 82 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
Wieta	Adam Wossen	3/16/2023	Exhibit 83 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
Wicta	Adam Wossen	3/16/2023	Exhibit 84 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
Ivicia	Addin Wossell	3/10/2023	Exhibit 85 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
ivicia	Adam Wossen	3/16/2023	Exhibit 86 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
Wicta	Adam Wossen	3/16/2023	Exhibit 87 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
Wicta	Adam Wossen	3/16/2023	Exhibit 88 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
Wicta	radiii Wossell	3/16/2023	Exhibit 89 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
Wicta	radiii Wossell	3/10/2023	Exhibit 90 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
Wicta	radiii Wossell	3/10/2023	Exhibit 91 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
111014	Traditi Wooden	2/10/2022	Exhibit 92 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
		0, 20, 202	Exhibit 93 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
		0,20,2020	Exhibit 94 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 95 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 96 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 97 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 98 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 99 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
			Exhibit 100 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri

Defendant	Witness	Date	Description
Defendant	Witness	Date	
Moto	Adam Mosseri	2/19/2025	Exhibit 101 to Deposition Transcript of Adam Mosseri
Meta	Adam Mossen	3/18/2023	
2.6	. 1 . 37	2/10/2025	Exhibit 102 to Deposition Transcript of
Meta	Adam Mosseri	3/18/2025	Adam Mosseri
3.5		2/10/2025	Exhibit 103 to Deposition Transcript of
Meta	Adam Mosseri		Adam Mosseri
Meta		2/6/2025	Deposition Transcript of Alison Lee
		- / - /	Exhibit 1 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 2 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 3 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 4 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 5 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 6 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 7 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 8 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 9 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 10 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 11 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 12 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 13 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 14 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 15 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 16 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 17 to Deposition Transcript of
Meta		2/6/2025	

Defendant	Witness	Date	Description
Defendant	Viciness	Date	Exhibit 18 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 19 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 20 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 21 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 22 to Deposition Transcript of
Meta		2/6/2025	
		- / - / - 0	Exhibit 23 to Deposition Transcript of
Meta		2/6/2025	
Mata		2/6/2025	Exhibit 24 to Deposition Transcript of
Meta		2/6/2025	Exhibit 25 to Deposition Transcript of
Meta		2/6/2025	
Wicta		2/0/2023	Exhibit 26 to Deposition Transcript of
Meta		2/6/2025	_
		2, 3, 2 3 2 5	Exhibit 27 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 28 to Deposition Transcript of
Meta		2/6/2025	_
			Exhibit 29 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 30 to Deposition Transcript of
Meta		2/6/2025	
		_ , _ ,	Exhibit 31 to Deposition Transcript of
Meta		2/6/2025	
24-4-		2/6/2025	Exhibit 32 to Deposition Transcript of
Meta		2/6/2025	
Meta		2/6/2025	Exhibit 33 to Deposition Transcript of
Meta		2/0/2023	Exhibit 34 to Deposition Transcript of
Meta		2/6/2025	
		_, 5, 2025	Exhibit 35 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 36 to Deposition Transcript of
Meta		2/6/2025	
			Exhibit 37 to Deposition Transcript of
Meta		2/6/2025	
Meta	Arturo Bejar	4/7/2025	Deposition Transcript of Arturo Bejar

Defendant	Witness	Date	Description
Defendant	Withess		Exhibit 1 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
Wieta	Arturo Dejar	4/1/2023	Exhibit 2 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
Meta	Arturo Bejar	4/1/2023	· ·
Meta	Arturo Dojor	4/7/2025	Exhibit 3 to Deposition Transcript of Arturo Bejar
Meta	Arturo Bejar	4/1/2023	
Meta	Arturo Dojor	4/7/2025	Exhibit 4 to Deposition Transcript of Arturo Bejar
Meta	Arturo Bejar	4/1/2023	3
Meta	Arturo Dojor	4/7/2025	Exhibit 5 to Deposition Transcript of Arturo Bejar
Meta	Arturo Bejar	4/1/2023	
Meta	Autumo Doion	4/7/2025	Exhibit 6 to Deposition Transcript of Arturo Bejar
Meta	Arturo Bejar	4/1/2023	J
Meta	Arturo Pojor	4/7/2025	Exhibit 7 to Deposition Transcript of Arturo Bejar
Meta	Arturo Bejar	4/1/2023	
Meta	Arturo Dojor	4/7/2025	Exhibit 8 to Deposition Transcript of Arturo Bejar
Meta	Arturo Bejar	4/1/2023	3
Meta	Arturo Dojor	4/7/2025	Exhibit 9 to Deposition Transcript of Arturo Bejar
Meta	Arturo Bejar	4/1/2023	
Meta	Arturo Bejar	4/7/2025	Exhibit 10 to Deposition Transcript of Arturo Bejar
IVICIA	Arturo Bejar	4/1/2023	· ·
Meta	Arturo Bejar	4/7/2025	Exhibit 11 to Deposition Transcript of Arturo Bejar
Wieta	Arturo Dejar	4/1/2023	Exhibit 12 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
Ivicia	Arturo Bejar	4/1/2023	Exhibit 13 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
Ivicia	Arturo Dejar	4/1/2023	Exhibit 14 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
1*1014	raturo Dejar	7/1/2023	Exhibit 15 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
Wicta	Arturo Dejar	4/1/2023	Exhibit 16 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
Wicta	Arturo Bejar	4/1/2023	Exhibit 17 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
141014	Titulo Dejai	7/1/2023	Exhibit 18 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
1/10:00	THUI DOJUI	7/1/2023	Exhibit 19 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
1/10:0	Titulo Dojul	7/1/2023	Exhibit 20 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
1,1010	1 Itulo Dejai	7/1/2023	r ir caro Dojui

Defendant	Witness	Date	Description
Defendant	Witness	Date	· · · · · · ·
N. 4	l D	4/7/2025	Exhibit 21 to Deposition Transcript of
Meta	Arturo Bejar	4/1/2025	Arturo Bejar
N. 4.	l D	4/7/2025	Exhibit 22 to Deposition Transcript of
Meta	Arturo Bejar		Arturo Bejar
			Exhibit 23 to Deposition Transcript of
Meta	Arturo Bejar	4/1/2025	Arturo Bejar
			Exhibit 24 to Deposition Transcript of
Meta	Arturo Bejar	4/1/2025	Arturo Bejar
			Exhibit 25 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
			Exhibit 26 to Deposition Transcript of
Meta	Arturo Bejar		Arturo Bejar
			Exhibit 27 to Deposition Transcript of
Meta	Arturo Bejar	4/7/2025	Arturo Bejar
			Exhibit 28 to Deposition Transcript of
Meta	Arturo Bejar		Arturo Bejar
Meta	Arturo Bejar	4/8/2025	Deposition Transcript of Arturo Bejar
			Exhibit 1 to Deposition Transcript of
Meta	Arturo Bejar		Arturo Bejar
			Exhibit 10 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 21 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 26 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 27 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 29 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 30 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 31 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 32 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 33 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 34 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 35 to Deposition Transcript of
Meta	Arturo Bejar		Arturo Bejar

Defendant	t Witness	Date	Description
			Exhibit 36 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
	J		Exhibit 37 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 38 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 39 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 40 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 41 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 42 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 43 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 44 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 45 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 46 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 47 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 48 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 49 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 50 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 51 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 52 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 53 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 54 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
		442.42.22	Exhibit 55 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar

Defendan	t Witness	Date	Description
			Exhibit 56 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
	J		Exhibit 57 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 58 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 59 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 60 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 61 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 62 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 63 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 64 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 65 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 66 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 67 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 68 to Deposition Transcript of
Meta	Arturo Bejar	4/8/2025	Arturo Bejar
			Exhibit 69 to Deposition Transcript of
Meta	Arturo Bejar		Arturo Bejar
Meta	Arturo Bejar	4/9/2025	Deposition Transcript of Arturo Bejar
			Exhibit 70 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
			Exhibit 71 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
			Exhibit 72 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
			Exhibit 73 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
			Exhibit 74 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
			Exhibit 75 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar

Defendant	Witness	Date	Description
Defendant	Withitess		Exhibit 76 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
TVICta	Titulo Bejui	7/7/2023	Exhibit 77 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
TVICta	Titulo Bejui	4/ // 2023	Exhibit 78 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
1v10tu	Titui o Bojui	1/3/2023	Exhibit 79 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
		.,,,	Exhibit 80 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Exhibit 81 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
	, and the same of		Exhibit 82 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
	3		Exhibit 83 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
			Exhibit 84 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
			Exhibit 85 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
			Exhibit 86 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
			Exhibit 87 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
			Exhibit 88 to Deposition Transcript of
Meta	Arturo Bejar	4/9/2025	Arturo Bejar
Meta	Aza Raskin	3/17/2025	Deposition Transcript of Aza Raskin
			Exhibit 1 to Deposition Transcript of Aza
Meta	Aza Raskin	3/17/2025	Raskin
			Exhibit 2 to Deposition Transcript of Aza
Meta	Aza Raskin	3/17/2025	
			Exhibit 3 to Deposition Transcript of Aza
Meta	Aza Raskin	3/17/2025	
			Exhibit 4 to Deposition Transcript of Aza
Meta	Aza Raskin	3/17/2025	
			Exhibit 5 to Deposition Transcript of Aza
Meta	Aza Raskin	3/17/2025	
			Exhibit 6 to Deposition Transcript of Aza
Meta	Aza Raskin	3/17/2025	
			Exhibit 7 to Deposition Transcript of Aza
Meta	Aza Raskin	3/17/2025	Raskin

Defendant	Witness	Date	Description
Defendant	witness	Date	-
Mata	Aza Raskin	3/17/2025	Exhibit 8 to Deposition Transcript of Aza
Meta	AZa Kaskin	3/17/2023	
N f = 4 =	A D1-:	3/17/2025	Exhibit 9 to Deposition Transcript of Aza
Meta	Aza Raskin	3/1//2025	
N f = 4 =	Aza Raskin	2/17/2025	Exhibit 10 to Deposition Transcript of Aza Raskin
Meta	Aza Kaskin	3/17/2023	
Meta	Aza Raskin	2/17/2025	Exhibit 11 to Deposition Transcript of Aza Raskin
Meta	AZa Kaskiii	3/11/2023	
Meta	Aza Raskin	3/17/2025	Exhibit 12 to Deposition Transcript of Aza Raskin
ivieta	AZa Naskiii	3/17/2023	Exhibit 13 to Deposition Transcript of
Meta	Aza Raskin	3/17/2025	Aza Raskin
Wieta	AZa Naskiii	3/11/2023	Exhibit 14 to Deposition Transcript of
Meta	Aza Raskin	3/17/2025	Aza Raskin
ivicia	AZa Kaskiii	3/11/2023	Exhibit 15 to Deposition Transcript of
Meta	Aza Raskin	3/17/2025	Aza Raskin
ivicia	AZa Naskiii	3/11/2023	Exhibit 16 to Deposition Transcript of
Meta	Aza Raskin	3/17/2025	Aza Raskin
TVICTO	1 IZU TUSKIII	3/1//2023	Exhibit 17 to Deposition Transcript of
Meta	Aza Raskin	3/17/2025	Aza Raskin
1/1000	Table Tenomia	0/1//2020	Exhibit 18 to Deposition Transcript of
Meta	Aza Raskin	3/17/2025	Aza Raskin
			Deposition Transcript of
Meta		10/16/2024	-
			Exhibit 1 to Deposition Transcript of
Meta		10/16/2024	
			Exhibit 2 to Deposition Transcript of
Meta		10/16/2024	
			Exhibit 3 to Deposition Transcript of
Meta		10/16/2024	
			Exhibit 4 to Deposition Transcript of
Meta		10/16/2024	
			Exhibit 5 to Deposition Transcript of
Meta		10/16/2024	
			Exhibit 6 to Deposition Transcript of
Meta		10/16/2024	
			Exhibit 7 to Deposition Transcript of
Meta		10/16/2024	
			Exhibit 8 to Deposition Transcript of
Meta		10/16/2024	

Defendant	Witness	Date	Description
			Exhibit 9 to Deposition Transcript of
Meta		10/16/2024	
TVICIU		10/10/2021	Exhibit 10 to Deposition Transcript of
Meta		10/16/2024	
Ivicia		10/10/2024	
Meta		10/16/2024	Exhibit 11 to Deposition Transcript of
Meta		10/16/2024	
26.4		10/16/2024	Exhibit 12 to Deposition Transcript of
Meta		10/16/2024	
			Exhibit 13 to Deposition Transcript of
Meta		10/16/2024	
			Exhibit 14 to Deposition Transcript of
Meta		10/16/2024	
			Deposition Transcript of
Meta		10/17/2024	
			Exhibit 6A to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 15 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 16 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 17 to Deposition Transcript of
Meta		10/17/2024	
2,2000		10,1,1,101	Exhibit 18 to Deposition Transcript of
Meta		10/17/2024	
Wick		10/1//2021	Exhibit 19 to Deposition Transcript of
Meta		10/17/2024	
ivicia		10/17/2024	Exhibit 20 to Deposition Transcript of
Meta		10/17/2024	
Meta		10/1//2024	
Mata		10/17/2024	Exhibit 21 to Deposition Transcript of
Meta		10/17/2024	
2.5.4		10/15/2021	Exhibit 22 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 23 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 24 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 25 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 26 to Deposition Transcript of
Meta		10/17/2024	

Defendant	Witness	Date	Description
			Exhibit 27 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 28 to Deposition Transcript of
Meta		10/17/2024	_
			Exhibit 29 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 30 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 31 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 32 to Deposition Transcript of
Meta		10/17/2024	<u> </u>
			Exhibit 33 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 34 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 35 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 36 to Deposition Transcript of
Meta		10/17/2024	
			Exhibit 37 to Deposition Transcript of
Meta		10/17/2024	
Meta		12/17/2024	Deposition Transcript of
			Exhibit 1 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 2 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 3 to Deposition Transcript of
Meta		12/17/2024	
		10/2=/2	Exhibit 4 to Deposition Transcript of
Meta		12/17/2024	
		10/15/000:	Exhibit 5 to Deposition Transcript of
Meta		12/17/2024	
2.5		10/15/2021	Exhibit 6 to Deposition Transcript of
Meta		12/17/2024	
Mats		10/17/0004	Exhibit 7 to Deposition Transcript of
Meta		12/17/2024	
N f = 4 =		10/17/0004	Exhibit 8 to Deposition Transcript of
Meta		12/17/2024	
Mote		10/17/0004	Exhibit 9 to Deposition Transcript of
Meta		12/17/2024	

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 10 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 11 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 12 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 13 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 14 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 15 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 16 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 17 to Deposition Transcript of
Meta		12/17/2024	
2.5		10/15/2024	Exhibit 18 to Deposition Transcript of
Meta		12/17/2024	
24-4-		10/17/0004	Exhibit 19 to Deposition Transcript of
Meta		12/17/2024	
Moto		12/17/2024	Exhibit 20 to Deposition Transcript of
Meta		12/1//2024	Exhibit 21 to Deposition Transcript of
Meta		12/17/2024	
Wicia		12/17/2024	Exhibit 22 to Deposition Transcript of
Meta		12/17/2024	
Wick		12/11/2024	Exhibit 23 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 24 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 25 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 26 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 27 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 28 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 29 to Deposition Transcript of
Meta		12/17/2024	

Defendant	Witness	Date	Description
		2	Exhibit 30 to Deposition Transcript of
Meta		12/17/2024	
	-		Exhibit 31 to Deposition Transcript of
Meta	_	12/17/2024	
			Exhibit 32 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 33 to Deposition Transcript of
Meta		12/17/2024	
Meta		12/17/2024	Exhibit 34 to Deposition Transcript of
Meta		12/1//2024	Exhibit 35 to Deposition Transcript of
Meta		12/17/2024	
1VICta		12/11/2024	Exhibit 36 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 37 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 38 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 39 to Deposition Transcript of
Meta		12/17/2024	
Mata		10/17/2024	Exhibit 40 to Deposition Transcript of
Meta		12/17/2024	Exhibit 41 to Deposition Transcript of
Meta		12/17/2024	
1/1010		12/11/2021	Exhibit 42 to Deposition Transcript of
Meta		12/17/2024	
	-		Exhibit 43 to Deposition Transcript of
Meta	_	12/17/2024	
			Exhibit 44 to Deposition Transcript of
Meta	_	12/17/2024	
		10/15/000:	Exhibit 45 to Deposition Transcript of
Meta		12/17/2024	
Meta		12/17/2024	Exhibit 46 to Deposition Transcript of
ivicia		12/1//2024	Exhibit 47 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 48 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 49 to Deposition Transcript of
Meta		12/17/2024	

Defendant	Witness	Date	Description
		2	Exhibit 50 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 51 to Deposition Transcript of
Meta		12/17/2024	_
			Exhibit 52 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 53 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 54 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 55 to Deposition Transcript of
Meta		12/17/2024	
3.6.		10/17/2024	Exhibit 56 to Deposition Transcript of
Meta		12/17/2024	
Moto		12/17/2024	Exhibit 57 to Deposition Transcript of
Meta		12/17/2024	
Meta		12/17/2024	Exhibit 58 to Deposition Transcript of
Wicia		12/17/2024	Exhibit 59 to Deposition Transcript of
Meta		12/17/2024	
TVICTO .		12/1//2021	Exhibit 60 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 61 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 62 to Deposition Transcript of
Meta		12/17/2024	
			Exhibit 63 to Deposition Transcript of
Meta		12/17/2024	
Meta		12/18/2024	Deposition Transcript of
			Exhibit 64 to Deposition Transcript of
Meta		12/18/2024	
2.5		10/20/202	Exhibit 65 to Deposition Transcript of
Meta		12/18/2024	
2.6		10/10/2021	Exhibit 66 to Deposition Transcript of
Meta		12/18/2024	
Moto		12/12/2024	Exhibit 67 to Deposition Transcript of
Meta		12/18/2024	
Meta		12/18/2024	Exhibit 68 to Deposition Transcript of
IVICIA		12/10/2024	Exhibit 69 to Deposition Transcript of
Meta		12/18/2024	
Meta		12/16/2024	

Defendant	Witness	Date	Description
			Exhibit 70 to Deposition Transcript of
Meta		12/18/2024	
Wieta		12/10/2021	Exhibit 71 to Deposition Transcript of
Meta		12/18/2024	
Wicia		12/16/2024	Exhibit 72 to Deposition Transcript of
Meta		12/18/2024	
Meta		12/16/2024	
N.f4		12/19/2024	Exhibit 73 to Deposition Transcript of
Meta		12/18/2024	
		10/10/2024	Exhibit 74 to Deposition Transcript of
Meta		12/18/2024	
		/ /	Exhibit 75 to Deposition Transcript of
Meta		12/18/2024	
			Exhibit 76 to Deposition Transcript of
Meta		12/18/2024	
			Exhibit 77 to Deposition Transcript of
Meta		12/18/2024	
			Exhibit 78 to Deposition Transcript of
Meta		12/18/2024	
			Exhibit 79 to Deposition Transcript of
Meta		12/18/2024	
			Exhibit 80 to Deposition Transcript of
Meta		12/18/2024	•
Meta		10/22/2024	Deposition Transcript of
			Exhibit 1 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 2 to Deposition Transcript of
Meta		10/22/2024	
		10.22.2021	Exhibit 3 to Deposition Transcript of
Meta		10/22/2024	_
1.10111		10,22,2027	Exhibit 4 to Deposition Transcript of
Meta		10/22/2024	_
1/1014		10/22/2024	Exhibit 5 to Deposition Transcript of
Meta		10/22/2024	-
Ivieta		10/22/2024	
Moto		10/22/2024	Exhibit 6 to Deposition Transcript of
Meta		10/22/2024	
		10/00/000	Exhibit 7 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 8 to Deposition Transcript of
Meta		10/22/2024	

Defendant	Witness	Date	Description
			Exhibit 9 to Deposition Transcript of
Meta		10/22/2024	<u> </u>
1,1014		10/22/2021	Exhibit 10 to Deposition Transcript of
Meta		10/22/2024	
ivicia		10/22/2024	Exhibit 11 to Deposition Transcript of
Meta		10/22/2024	
Meta		10/22/2024	
Mata		10/22/2024	Exhibit 12 to Deposition Transcript of
Meta		10/22/2024	
3.6.4		10/20/2024	Exhibit 13 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 14 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 15 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 16 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 17 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 18 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 19 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 20 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 21 to Deposition Transcript of
Meta		10/22/2024	
TVICTO .		10/22/2021	Exhibit 22 to Deposition Transcript of
Meta		10/22/2024	
IVICIA		10/22/2024	Exhibit 23 to Deposition Transcript of
Meta		10/22/2024	
Ivicia		10/22/2024	
Mata		10/22/2024	Exhibit 24 to Deposition Transcript of
Meta		10/22/2024	
2.5.4		10/00/000	Exhibit 25 to Deposition Transcript of
Meta		10/22/2024	
		10/00/00	Exhibit 26 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 27 to Deposition Transcript of
Meta		10/22/2024	
			Exhibit 28 to Deposition Transcript of
Meta		10/22/2024	

Defendant	Witness	Date	Description
Defendant	VV Itiless	Date	Exhibit 29 to Deposition Transcript of
Meta		10/22/2024	
Meta		10/22/2024	
Mata		10/22/2024	Deposition Transcript of
Meta		10/23/2024	
2.5.4		10/22/2024	Exhibit 30 to Deposition Transcript of
Meta		10/23/2024	
3.5.4		10/02/2024	Exhibit 31 to Deposition Transcript of
Meta		10/23/2024	
3.5.		10/00/0004	Exhibit 32 to Deposition Transcript of
Meta		10/23/2024	
			Exhibit 33 to Deposition Transcript of
Meta		10/23/2024	
			Exhibit 34 to Deposition Transcript of
Meta		10/23/2024	
			Exhibit 35 to Deposition Transcript of
Meta		10/23/2024	
			Exhibit 36 to Deposition Transcript of
Meta		10/23/2024	
			Exhibit 37 to Deposition Transcript of
Meta		10/23/2024	
			Exhibit 38 to Deposition Transcript of
Meta		10/23/2024	
			Exhibit 39 to Deposition Transcript of
Meta		10/23/2024	
			Exhibit 40 to Deposition Transcript of
Meta		10/23/2024	
			Exhibit 41 to Deposition Transcript of
Meta		10/23/2024	
			Exhibit 42 to Deposition Transcript of
Meta		10/23/2024	
Meta		3/6/2025	Deposition Transcript of
			Exhibit 1 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 2 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 3 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 4 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 5 to Deposition Transcript of
Meta		3/6/2025	

Defendant	Witness	Date	Description
Defendant	Withess	Date	
3.6.4		2/5/2025	Exhibit 6 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 7 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 8 to Deposition Transcript of
Meta		3/6/2025	
Wieta		3/0/2023	Exhibit 9 to Deposition Transcript of
		2/6/2025	Exhibit 9 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 10 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 11 to Deposition Transcript of
Meta		3/6/2025	•
			Exhibit 12 to Deposition Transcript of
Meta		2/6/2025	Exhibit 12 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 13 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 14 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 15 to Deposition Transcript of
Meta		3/6/2025	Eximon 15 to Beposition Transcript of
Wieta		3/0/2023	E 1 1 1 1 1 C
		- / - /	Exhibit 16 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 17 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 18 to Deposition Transcript of
Meta		3/6/2025	1
112111		2,0,2023	Exhibit 19 to Deposition Transcript of
N 6-4-		2/6/2025	Exhibit 19 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 20 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 21 to Deposition Transcript of
Meta		3/6/2025	-
			Exhibit 22 to Deposition Transcript of
Meta		3/6/2025	Entitle 22 to Deposition Transcript of
ivicia		3/0/2023	D 17 / 22 / D 2/ T 1 / C
			Exhibit 23 to Deposition Transcript of
Meta		3/6/2025	
			Exhibit 24 to Deposition Transcript of
Meta		3/6/2025	
Meta		3/5/2025	Deposition Transcript of
-			Exhibit 25 to Deposition Transcript of
Moto		2/5/2025	
Meta		3/5/2025	

Defendant	Witness	Date	Description
Defendant	witness	Date	
3.5.		2/5/2025	Exhibit 26 to Deposition Transcript of
Meta		3/5/2025	
			Exhibit 27 to Deposition Transcript of
Meta		3/5/2025	
			Exhibit 28 to Deposition Transcript of
Meta		3/5/2025	
			Exhibit 29 to Deposition Transcript of
Meta		3/5/2025	
			Exhibit 30 to Deposition Transcript of
Meta		3/5/2025	
1,10111		2,2,2023	Exhibit 31 to Deposition Transcript of
Meta		3/5/2025	
ivicia		3/3/2023	
3.6.4		2/5/2025	Exhibit 32 to Deposition Transcript of
Meta		3/5/2025	
			Exhibit 33 to Deposition Transcript of
Meta		3/5/2025	
			Exhibit 34 to Deposition Transcript of
Meta		3/5/2025	
			Exhibit 35 to Deposition Transcript of
Meta		3/5/2025	
			Exhibit 36 to Deposition Transcript of
Meta		3/5/2025	
		2,0,2020	Exhibit 37 to Deposition Transcript of
Meta		3/5/2025	
ivicia		3/3/2023	Exhibit 38 to Deposition Transcript of
Moto		2/5/2025	
Meta		3/5/2025	
3.6.4		2/5/2025	Exhibit 39 to Deposition Transcript of
Meta		3/5/2025	
			Deposition Transcript of
Meta		12/16/2024	
			Exhibit 1 to Deposition Transcript of
Meta		12/16/2024	
			Exhibit 2 to Deposition Transcript of
Meta		12/16/2024	_
			Exhibit 3 to Deposition Transcript of
Meta		12/16/2024	
			Exhibit 4 to Deposition Transcript of
Meta		12/16/2024	
Ivicia		12/10/2024	
Mata		12/16/2024	Exhibit 5 to Deposition Transcript of
Meta		12/16/2024	

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Defendant	Witness	Date	Description
Бегенцине	VY TOTICSS		Exhibit 13 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
- Ivicta	Guy Rosen	2/20/2023	Exhibit 14 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
Titota	Guy Rosen	2/20/2025	Exhibit 15 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
112000	Cuj Hosen	2,20,2020	Exhibit 16 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 17 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 18 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 19 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 20 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 21 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
	·		Exhibit 22 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 23 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 24 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 25 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 26 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 27 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 28 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 29 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 30 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 31 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 32 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen

Defendant	Witness	Date	Description
Defendant	Witness	Date	
2.5.4	C D	0/00/0005	Exhibit 33 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
3.5.	a . T	2/20/2025	Exhibit 34 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 35 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 36 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 37 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 38 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Exhibit 39 to Deposition Transcript of
Meta	Guy Rosen	2/20/2025	Guy Rosen
			Deposition Transcript of
Meta		11/14/2024	
			Exhibit 1 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 2 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 3 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 4 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 5 to Deposition Transcript of
Meta		11/14/2024	
		11/1 // 2021	Exhibit 6 to Deposition Transcript of
Meta		11/14/2024	
1,1014		11/11/2027	Exhibit 7 to Deposition Transcript of
Meta		11/14/2024	
IVICIA		11/14/2024	Exhibit 8 to Deposition Transcript of
Meta		11/14/2024	
Meta		11/14/2024	
Moto		11/14/2024	Exhibit 9 to Deposition Transcript of
Meta		11/14/2024	
Moto		11/14/2024	Exhibit 10 to Deposition Transcript of
Meta		11/14/2024	
2.5.4		11/1/2004	Exhibit 11 to Deposition Transcript of
Meta		11/14/2024	
		44/4/205	Exhibit 12 to Deposition Transcript of
Meta		11/14/2024	

Defendant	Witness	Date	Description
			Exhibit 13 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 14 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 15 to Deposition Transcript of
Meta		11/14/2024	
	Ť		Exhibit 16 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 17 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 18 to Deposition Transcript of
Meta		11/14/2024	
	T		Exhibit 19 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 20 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 21 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 22 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 23 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 24 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 25 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 26 to Deposition Transcript of
Meta		11/14/2024	
26.4		11/14/2024	Exhibit 27 to Deposition Transcript of
Meta		11/14/2024	
N -4		11/14/2024	Exhibit 28 to Deposition Transcript of
Meta		11/14/2024	
M-4-		11/14/2024	Exhibit 29 to Deposition Transcript of
Meta		11/14/2024	
Moto		11/14/2024	Exhibit 30 to Deposition Transcript of
Meta		11/14/2024	
Meta		11/14/2024	Exhibit 31 to Deposition Transcript of
ivieta		11/14/2024	
Meta		11/14/2024	Exhibit 32 to Deposition Transcript of
ivicia		11/14/2024	

Defendant	Witness	Date	Description
	VV Ichess	Date	Exhibit 33 to Deposition Transcript of
Meta		11/14/2024	-
Wicta		11/14/2024	Exhibit 34 to Deposition Transcript of
Meta		11/14/2024	-
Meta		11/14/2024	
N.C-4-		11/14/2024	Exhibit 35 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 36 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 37 to Deposition Transcript of
Meta		11/14/2024	
			Exhibit 38 to Deposition Transcript of
Meta		11/14/2024	
Meta		3/13/2025	Deposition Transcript of
			Exhibit 1 to Deposition Transcript of
Meta		3/13/2025	
			Exhibit 2 to Deposition Transcript of
Meta		3/13/2025	
			Exhibit 3 to Deposition Transcript of
Meta		3/13/2025	
			Exhibit 4 to Deposition Transcript of
Meta		3/13/2025	
			Exhibit 5 to Deposition Transcript of
Meta		3/13/2025	
TVICTO .		3/13/2023	Exhibit 6 to Deposition Transcript of
Meta		3/13/2025	
Ivicta		3/13/2023	Exhibit 7 to Deposition Transcript of
Meta		3/13/2025	
Ivicia		3/13/2023	Exhibit 8 to Deposition Transcript of
Mote		3/13/2025	
Meta		3/13/2023	
]		2/12/2025	Exhibit 9 to Deposition Transcript of
Meta		3/13/2025	
2.5		2/12/225	Exhibit 10 to Deposition Transcript of
Meta		3/13/2025	
			Exhibit 11 to Deposition Transcript of
Meta		3/13/2025	
			Exhibit 12 to Deposition Transcript of
Meta		3/13/2025	
			Exhibit 13 to Deposition Transcript of
Meta		3/13/2025	
			Exhibit 14 to Deposition Transcript of
Meta		3/13/2025	

Defendant	Witness	Date	Description
Defendant	Vittless	Date	Exhibit 15 to Deposition Transcript of
Meta		3/13/2025	
Wicia		3/13/2023	Exhibit 16 to Deposition Transcript of
Meta		3/13/2025	
Meta		3/13/2023	Exhibit 17 to Deposition Transcript of
Meta		3/13/2025	
Meta		3/13/2023	
Meta		3/13/2025	Exhibit 18 to Deposition Transcript of
Meta		3/13/2023	
Meta		3/13/2025	Exhibit 19 to Deposition Transcript of
Meta		3/13/2023	
N f - 4 -		2/12/2025	Exhibit 20 to Deposition Transcript of
Meta		3/13/2025	
Mada		2/12/2025	Exhibit 21 to Deposition Transcript of
Meta		3/13/2025	
3.5.4		2/12/2025	Exhibit 22 to Deposition Transcript of
Meta		3/13/2025	
2.5.4		2/12/2025	Exhibit 23 to Deposition Transcript of
Meta		3/13/2025	
3.5.4		2/12/2025	Exhibit 24 to Deposition Transcript of
Meta		3/13/2025	
2.5.4		2/12/2025	Exhibit 25 to Deposition Transcript of
Meta		3/13/2025	
3.5.4		2/12/2025	Exhibit 26 to Deposition Transcript of
Meta		3/13/2025	
2.5		2/12/2025	Exhibit 27 to Deposition Transcript of
Meta		3/13/2025	
3.5.4		2/12/2025	Exhibit 28 to Deposition Transcript of
Meta		3/13/2025	
24-4-		2/12/2025	Exhibit 29 to Deposition Transcript of
Meta		3/13/2025	
24.		2/12/2025	Exhibit 30 to Deposition Transcript of
Meta		3/13/2025	
2.6-4		2/12/2025	Exhibit 31 to Deposition Transcript of
Meta		3/13/2025	
24.		2/12/2025	Exhibit 32 to Deposition Transcript of
Meta		3/13/2025	
		2/12/2025	Exhibit 33 to Deposition Transcript of
Meta		3/13/2025	
2.5.4		2/12/202	Exhibit 34 to Deposition Transcript of
Meta		3/13/2025	

Defendant	Witness	Date	Description
Defendant	Viteless	Date	Exhibit 35 to Deposition Transcript of
Meta		3/13/2025	
Wicta		3/13/2023	Exhibit 36 to Deposition Transcript of
Meta		3/13/2025	
Meta		3/13/2023	Exhibit 37 to Deposition Transcript of
Meta		3/13/2025	
Meta		3/13/2023	
Moto		3/13/2025	Exhibit 38 to Deposition Transcript of
Meta		3/13/2023	
Mata		3/13/2025	Exhibit 39 to Deposition Transcript of
Meta		3/13/2023	
N.f4-		2/12/2025	Exhibit 40 to Deposition Transcript of
Meta		3/13/2025	
2.5.4		2/12/2025	Exhibit 41 to Deposition Transcript of
Meta		3/13/2025	
3.5.4		2/12/2025	Exhibit 42 to Deposition Transcript of
Meta		3/13/2025	
2.5		2/12/2025	Exhibit 43 to Deposition Transcript of
Meta		3/13/2025	
		0/10/000	Exhibit 44 to Deposition Transcript of
Meta		3/13/2025	
3.5.		0/10/0005	Exhibit 45 to Deposition Transcript of
Meta		3/13/2025	
		. / /	Exhibit 46 to Deposition Transcript of
Meta		3/13/2025	
		- / /	Exhibit 47 to Deposition Transcript of
Meta		3/13/2025	
		0/10/000	Exhibit 48 to Deposition Transcript of
Meta		3/13/2025	
		0/10/2055	Exhibit 49 to Deposition Transcript of
Meta		3/13/2025	
		0/10/2055	Exhibit 50 to Deposition Transcript of
Meta		3/13/2025	
		- /a - /	Exhibit 51 to Deposition Transcript of
Meta		3/13/2025	
		0/10/205	Exhibit 52 to Deposition Transcript of
Meta		3/13/2025	
		0/10/00=	Exhibit 53 to Deposition Transcript of
Meta		3/13/2025	
			Exhibit 54 to Deposition Transcript of
Meta		3/13/2025	

Defendant	Witness	Date	Description
	VV TOTAL SIS		Exhibit 55 to Deposition Transcript of
Meta		3/13/2025	
Ivicta		3/13/2023	Exhibit 56 to Deposition Transcript of
Meta		3/13/2025	
Meta		3/13/2023	
N f = 4 =		2/12/2025	Exhibit 57 to Deposition Transcript of
Meta		3/13/2025	
3.6.4		2/12/2025	Exhibit 58 to Deposition Transcript of
Meta		3/13/2025	
Meta		4/1/2025	Deposition Transcript of
			Exhibit 59 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit 60 to Deposition Transcript of
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			Exhibit 61 to Deposition Transcript of
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			Exhibit 62 to Deposition Transcript of
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			Exhibit 63 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit 64 to Deposition Transcript of
Meta		4/1/2025	
2,2010			Exhibit 65 to Deposition Transcript of
Meta		4/1/2025	
Michael		-1/1/2023	Exhibit 66 to Deposition Transcript of
Meta		4/1/2025	
Wicia		4/1/2023	Exhibit 67 to Deposition Transcript of
Meta		4/1/2025	
Ivieta		4/1/2023	
Mots		4/1/2025	Exhibit 68 to Deposition Transcript of
Meta		4/1/2025	
N f - 4 -		4/1/0005	Exhibit 69 to Deposition Transcript of
Meta		4/1/2025	
		, 10 10	Exhibit 70 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit 71 to Deposition Transcript of
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			Exhibit 72 to Deposition Transcript of
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			Exhibit 73 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit 74 to Deposition Transcript of
Meta		4/1/2025	

Defendant	Witness	Data	Description
Defendant	Witness	Date	Description
			Exhibit 75 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit 76 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit 77 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit 78 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit PM7 to Deposition Transcript of
Meta		4/1/2025	
1victa		1/1/2023	Exhibit PM9 to Deposition Transcript of
Meta		4/1/2025	
Meta		4/1/2023	
26.4		4/1/2025	Exhibit PM17 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit PM9 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit PM17 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit PM18 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit PM20 to Deposition Transcript of
Meta		4/1/2025	
1victa		1/1/2023	Exhibit PM24 to Deposition Transcript of
Meta		4/1/2025	
Meta		4/1/2023	
2.5.4		4/1/2025	Exhibit PM26 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit PM35 to Deposition Transcript of
Meta		4/1/2025	
			Exhibit PM45 to Deposition Transcript of
Meta		4/1/2025	
Meta		10/24/2024	Deposition Transcript of
			Exhibit 1 to Deposition Transcript of
Meta		10/24/2024	-
			Exhibit 2 to Deposition Transcript of
Meta		10/24/2024	
IVICIA		10/27/2024	Exhibit 3 to Deposition Transcript of
Moto		10/24/2024	
Meta		10/24/2024	
		4.6.1	Exhibit 4 to Deposition Transcript of
Meta		10/24/2024	
			Exhibit 5 to Deposition Transcript of
Meta		10/24/2024	
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Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 6 to Deposition Transcript of
Meta		10/24/2024	
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			Exhibit 7 to Deposition Transcript of
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			Exhibit 8 to Deposition Transcript of
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			Exhibit 9 to Deposition Transcript of
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			Exhibit 10 to Deposition Transcript of
Meta		10/24/2024	
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Meta		10/24/2024	
ivieta		10/24/2024	
3.6.4		10/24/2024	Exhibit 12 to Deposition Transcript of
Meta		10/24/2024	
			Exhibit 13 to Deposition Transcript of
Meta		10/24/2024	
			Exhibit 14 to Deposition Transcript of
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			Exhibit 15 to Deposition Transcript of
Meta		10/24/2024	
		10.11.101.1	Exhibit 16 to Deposition Transcript of
Meta		10/24/2024	
Ivieta		10/24/2024	
26.4		10/24/2024	Exhibit 17 to Deposition Transcript of
Meta		10/24/2024	
			Exhibit 18 to Deposition Transcript of
Meta		10/24/2024	
			Exhibit 19 to Deposition Transcript of
Meta		10/24/2024	
			Exhibit 20 to Deposition Transcript of
Meta		10/24/2024	
			Exhibit 21 to Deposition Transcript of
Meta		10/24/2024	
1110111		10/21/2024	Exhibit 22 to Deposition Transcript of
Moto		10/24/2024	
Meta		10/24/2024	
		40/5-1/5-5	Exhibit 23 to Deposition Transcript of
Meta		10/24/2024	
			Exhibit 24 to Deposition Transcript of
Meta		10/24/2024	
			Exhibit 25 to Deposition Transcript of
Meta		10/24/2024	

Defendant	Witness	Date	Description
Defendant	Witness	Date	Description
		/ /	Exhibit 26 to Deposition Transcript of
Meta		10/24/2024	
Meta		10/25/2024	Deposition Transcript of
			Exhibit 27 to Deposition Transcript of
Meta		10/25/2024	
			Exhibit 28 to Deposition Transcript of
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			Exhibit 29 to Deposition Transcript of
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			Exhibit 30 to Deposition Transcript of
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Meta		10/25/2024	
Ivicia		10/23/2024	
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Meta		10/25/2024	
			Exhibit 33 to Deposition Transcript of
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			Exhibit 34 to Deposition Transcript of
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			Exhibit 35 to Deposition Transcript of
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			Exhibit 36 to Deposition Transcript of
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			Exhibit 37 to Deposition Transcript of
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			Exhibit 38 to Deposition Transcript of
Meta		10/25/2024	
		23.20.2021	Exhibit 39 to Deposition Transcript of
Meta		10/25/2024	
IVICIA		10/23/2024	Exhibit 40 to Deposition Transcript of
Moto		10/25/2024	
Meta		10/23/2024	
2.5.4		10/25/2021	Exhibit 41 to Deposition Transcript of
Meta		10/25/2024	
			Exhibit 42 to Deposition Transcript of
Meta		10/25/2024	
			Exhibit 43 to Deposition Transcript of
Meta		10/25/2024	
			Exhibit 44 to Deposition Transcript of
Meta		10/25/2024	
			Exhibit 45 to Deposition Transcript of
Meta		10/25/2024	
		10,20,2027	

Defendant	Witness	Date	Description
Defendant	Withess	Date	
Moto		10/25/2024	Exhibit 46 to Deposition Transcript of
Meta		10/23/2024	
24		10/25/2024	Exhibit 47 to Deposition Transcript of
Meta		10/25/2024	
3.6.4		10/05/0004	Exhibit 48 to Deposition Transcript of
Meta		10/25/2024	
		/ /	Exhibit 49 to Deposition Transcript of
Meta		10/25/2024	
			Exhibit 50 to Deposition Transcript of
Meta		10/25/2024	
			Exhibit 51 to Deposition Transcript of
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			Exhibit 52 to Deposition Transcript of
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			Exhibit 53 to Deposition Transcript of
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			Exhibit 54 to Deposition Transcript of
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			Exhibit 55 to Deposition Transcript of
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			Exhibit 56 to Deposition Transcript of
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			Exhibit 57 to Deposition Transcript of
Meta		10/25/2024	
			Exhibit 58 to Deposition Transcript of
Meta		10/25/2024	
			Exhibit 59 to Deposition Transcript of
Meta		10/25/2024	
Meta		2/27/2025	Deposition Transcript of
			Exhibit 1 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 2 to Deposition Transcript of
Meta		2/27/2025	• •
			Exhibit 3 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 4 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 5 to Deposition Transcript of
Meta		2/27/2025	
2.1014		2,21,2023	Exhibit 6 to Deposition Transcript of
Meta		2/27/2025	
111Cta		2/2/1/2023	

Defendant	Witness	Date	Description
Detendant	Withess.	Date	Exhibit 7 to Deposition Transcript of
Meta		2/27/2025	
Wicta		2/27/2023	Exhibit 8 to Deposition Transcript of
Meta		2/27/2025	•
Wicta		2/2//2023	Exhibit 9 to Deposition Transcript of
Meta		2/27/2025	
141614		2/2//2025	Exhibit 10 to Deposition Transcript of
Meta		2/27/2025	
1.1000			Exhibit 11 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 12 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 13 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 14 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 15 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 16 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 17 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 18 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 19 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 20 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 21 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 22 to Deposition Transcript of
Meta		2/27/2025	
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Meta		2/27/2025	
2.6-4-		0/07/0005	Exhibit 24 to Deposition Transcript of
Meta		2/27/2025	
Mats		0/07/0005	Exhibit 25 to Deposition Transcript of
Meta		2/27/2025	
Note		0/07/0005	Exhibit 26 to Deposition Transcript of
Meta		2/27/2025	

Defendant	Witness	Date	Description
Defendant		Date	Exhibit 27 to Deposition Transcript of
Meta		2/27/2025	
Meta		2/2//2023	
Mata		2/27/2025	Exhibit 28 to Deposition Transcript of
Meta		2/2//2023	
3.5.		0/05/0005	Exhibit 29 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 30 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 31 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 32 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 33 to Deposition Transcript of
Meta		2/27/2025	·
			Exhibit 34 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 35 to Deposition Transcript of
Meta		2/27/2025	
Wicta		2/2//2023	Exhibit 36 to Deposition Transcript of
Meta		2/27/2025	
Meta		2/2//2023	
2.5.4		2/27/2025	Exhibit 37 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 38 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 39 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 40 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 41 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 42 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 43 to Deposition Transcript of
Meta		2/27/2025	
			Exhibit 44 to Deposition Transcript of
Meta		2/27/2025	
Wicia		212112023	Exhibit 45 to Deposition Transcript of
Meta		2/27/2025	
Meta		2/28/2025	Deposition Transcript of
		0/00/00=	Exhibit 46 to Deposition Transcript of
Meta		2/28/2025	

Defendant	Witness	Date	Description
Detendant	VV ICHCSS	Date	Exhibit 47 to Deposition Transcript of
Meta		2/28/2025	
ivicia		2/20/2023	Exhibit 48 to Deposition Transcript of
Meta		2/28/2025	
Wicia		2/20/2023	Exhibit 49 to Deposition Transcript of
Meta		2/28/2025	-
Wicta		2/20/2023	Exhibit 50 to Deposition Transcript of
Meta		2/28/2025	
Wicta		2/20/2023	Exhibit 51 to Deposition Transcript of
Meta		2/28/2025	
Meta		2/26/2023	Exhibit 52 to Deposition Transcript of
Meta		2/28/2025	
Meta		2/26/2023	Exhibit 53 to Deposition Transcript of
Meta		2/28/2025	
Meta		2/28/2023	Exhibit 54 to Deposition Transcript of
Meta		2/28/2025	
Meta		2/26/2023	
Moto		2/28/2025	Exhibit 55 to Deposition Transcript of
Meta		2/28/2023	
24-4-		2/29/2025	Exhibit 56 to Deposition Transcript of
Meta		2/28/2025	
N.C. de		2/29/2025	Exhibit 57 to Deposition Transcript of
Meta		2/28/2025	
24		2/20/2025	Exhibit 58 to Deposition Transcript of
Meta		2/28/2025	
Note		2/29/2025	Exhibit 59 to Deposition Transcript of
Meta		2/28/2025	
Meta		2/29/2025	Exhibit 60 to Deposition Transcript of
	Vaistin II andain	2/28/2025	
Meta	Kristin Hendrix	1/22/2023	Deposition Transcript of Kristin Hendrix
Moto	Kristin Hendrix	1/22/2025	Exhibit 1 to Deposition Transcript of Kristin Hendrix
Meta	кизин пенапх	1/22/2023	
Moto	Vaiotin U. daire	1/22/2025	Exhibit 2 to Deposition Transcript of Kristin Hendrix
Meta	Kristin Hendrix	1/22/2025	
Mata	Vaiatia II.a. 1	1/20/2025	Exhibit 3 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix
Moto	Vaiotin II-u lair	1/22/2025	Exhibit 4 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix
Mate	Maintin II and Inia	1/20/2025	Exhibit 5 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix
2.5.4	TZ : 4: TT 1:	1/00/0005	Exhibit 6 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix

Defendant	t Witness	Date	Description
Detendan	VVICIOSS		Exhibit 7 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix
			Exhibit 8 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix
			Exhibit 9 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix
			Exhibit 10 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix
			Exhibit 11 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix
			Exhibit 12 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix
			Exhibit 13 to Deposition Transcript of
Meta	Kristin Hendrix	1/22/2025	Kristin Hendrix
			Exhibit 14 to Deposition Transcript of
Meta	Kristin Hendrix		Kristin Hendrix
Meta	Kristin Hendrix	1/23/2025	Deposition Transcript of Kristin Hendrix
			Exhibit 15 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 16 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
		1,122,1222	Exhibit 17 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
3.5	TZ 1 .1 TT 1 1	1 /22 /2025	Exhibit 18 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
M-4-	IZ at a 4t a III a a diata.	1 /02 /0005	Exhibit 19 to Deposition Transcript of Kristin Hendrix
Meta	Kristin Hendrix	1/23/2025	
Mata	Kristin Hendrix	1/22/2025	Exhibit 20 to Deposition Transcript of Kristin Hendrix
Meta	Kristili Heliarix	1/23/2023	
Meta	Kristin Hendrix	1/23/2025	Exhibit 21 to Deposition Transcript of Kristin Hendrix
Meta	Kiistiii Heliulix	1/23/2023	Exhibit 22 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
171014	Tarisum Hendria	1/23/2023	Exhibit 23 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
	THIS WILL TO HOLL	1,23,2023	Exhibit 24 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
	20110111		Exhibit 25 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 26 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix

Defendant	Witness	Date	Description
Detenuant	Withess	Date	Exhibit 27 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Micia	Kristiii Heliulix	1/23/2023	
Meta	Kristin Hendrix	1/23/2025	Exhibit 28 to Deposition Transcript of Kristin Hendrix
Meta	Kristin Hendrix	1/23/2023	
Meta	Kristin Hendrix	1/22/2025	Exhibit 29 to Deposition Transcript of Kristin Hendrix
Meta	Kristin Hendrix	1/23/2023	
Meta	Kristin Hendrix	1/23/2025	Exhibit 30 to Deposition Transcript of Kristin Hendrix
ivicia	Kristiii Helidiix	1/23/2023	Exhibit 31 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Wieta	Kristiii Heliulix	1/23/2023	Exhibit 32 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Wicta	Kristiii Helidiix	1/23/2023	Exhibit 33 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Wicta	Kristiii Helidiix	1/23/2023	Exhibit 34 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Wicta	THISTIII TICHGIIA	1/23/2023	Exhibit 35 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
111014		1,25,2020	Exhibit 36 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 37 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 38 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 39 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 40 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 41 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 42 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 43 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 44 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 45 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 46 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix

Defendant	Witness	Date	Description
			Exhibit 47 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 48 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 49 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 50 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 51 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 52 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 53 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 54 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 55 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 56 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 57 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 58 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
			Exhibit 59 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
3.6		1 /22 /222	Exhibit 60 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
3.6		1 /22 /2025	Exhibit 61 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
N	TZ ' .' II 1 '	1/02/0005	Exhibit 62 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Mata	Valatia II 1-1	1/02/0005	Exhibit 63 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Moto	Voictin Handrin	1 /02 /0005	Exhibit 64 to Deposition Transcript of Kristin Hendrix
Meta	Kristin Hendrix	1/23/2025	
Meta	Kristin Hendrix	1/22/2025	Exhibit 65 to Deposition Transcript of Kristin Hendrix
ivicia	KIISUII HEHUHX	1/23/2023	
Meta	Kristin Hendrix	1/23/2025	Exhibit 66 to Deposition Transcript of Kristin Hendrix
ivicia	MISHII HEHUHA	1/23/2023	INTOUR HURAIA

Defendant	Witness	Date	Description
Detendant	Withess	Date	Exhibit 67 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Wicta	Kristin Hendria	1/23/2023	Exhibit 68 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Meta	Kristiii Hendrix	1/23/2023	Exhibit 69 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Meta	Kristin Hendrix	1/23/2023	Exhibit 70 to Deposition Transcript of
Meta	Kristin Hendrix	1/23/2025	Kristin Hendrix
Meta	Kristiii Helidi ix		Deposition Transcript of
Meta		11/19/2024	Exhibit 1 to Deposition Transcript of
Meta		11/19/2024	
Meta		11/19/2024	Exhibit 2 to Deposition Transcript of
Meta		11/19/2024	
Meta		11/19/2024	
Meta		11/19/2024	Exhibit 3 to Deposition Transcript of
Meta		11/19/2024	Exhibit 4 to Deposition Transcript of
Meta		11/19/2024	*
Meta		11/19/2024	Exhibit 5 to Deposition Transcript of
Meta		11/19/2024	
Meta		11/19/2024	
Moto		11/19/2024	Exhibit 6 to Deposition Transcript of
Meta		11/19/2024	
Meta		11/19/2024	Exhibit 7 to Deposition Transcript of
Meta		11/19/2024	
Meta		11/19/2024	Exhibit 8 to Deposition Transcript of
Meta		11/19/2024	
Meta		11/19/2024	Exhibit 9 to Deposition Transcript of
ivicia		11/19/2024	Exhibit 10 to Deposition Transcript of
Meta		11/19/2024	
Wicia		11/19/2024	Exhibit 11 to Deposition Transcript of
Meta		11/19/2024	
ivieta		11/13/2024	Exhibit 12 to Deposition Transcript of
Meta		11/19/2024	
Meta		11/19/2024	Exhibit 13 to Deposition Transcript of
Meta		11/19/2024	· · ·
Ivicia		11/13/2024	Exhibit 14 to Deposition Transcript of
Meta		11/19/2024	
Wicia		11/19/2024	Exhibit 15 to Deposition Transcript of
Meta		11/19/2024	
Ivicia		11/19/2024	Exhibit 16 to Deposition Transcript of
Meta		11/19/2024	
ivicia		11/19/2024	

Defendant	Witness	Date	Description
			Exhibit 17 to Deposition Transcript of
Meta		11/19/2024	
			Exhibit 18 to Deposition Transcript of
Meta		11/19/2024	
1,10111		11/12/2021	Exhibit 19 to Deposition Transcript of
Meta		11/19/2024	
1VICIU		11/13/2021	Exhibit 20 to Deposition Transcript of
Meta		11/19/2024	
Wich		11/15/2021	Exhibit 21 to Deposition Transcript of
Meta		11/19/2024	
IVICIA		11/17/2024	Exhibit 22 to Deposition Transcript of
Meta		11/19/2024	
1v1Cta		11/17/2024	Exhibit 23 to Deposition Transcript of
Meta		11/19/2024	
Wieta		11/19/2024	Exhibit 24 to Deposition Transcript of
Meta		11/19/2024	
Meta		11/19/2024	
Meta		11/19/2024	Exhibit 25 to Deposition Transcript of
Meta		11/19/2024	
Moto		11/19/2024	Exhibit 26 to Deposition Transcript of
Meta		11/19/2024	
N - 4 -		11/10/2024	Exhibit 27 to Deposition Transcript of
Meta		11/19/2024	
N		11/10/2024	Exhibit 28 to Deposition Transcript of
Meta		11/19/2024	
N		11/10/2024	Exhibit 29 to Deposition Transcript of
Meta		11/19/2024	
N. (11/10/2024	Exhibit 30 to Deposition Transcript of
Meta		11/19/2024	
Mate		11/10/2024	Exhibit 31 to Deposition Transcript of
Meta		11/19/2024	
N.C-4-		11/10/2024	Exhibit 32 to Deposition Transcript of
Meta		11/19/2024	
		11/10/202:	Exhibit 33 to Deposition Transcript of
Meta		11/19/2024	
2.6		11/10/2021	Exhibit 34 to Deposition Transcript of
Meta		11/19/2024	
		11/10/205:	Exhibit 35 to Deposition Transcript of
Meta		11/19/2024	
		44/22/	Exhibit 36 to Deposition Transcript of
Meta		11/19/2024	

Defendant	Witness	Date	Description
Defendant	Witness	Date	
		11/10/2024	Exhibit 37 to Deposition Transcript of
Meta		11/19/2024	
Meta		11/20/2024	Deposition Transcript of
			Exhibit 38 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 39 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 40 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 41 to Deposition Transcript of
Meta		11/20/2024	
Wicta		11/20/2024	Exhibit 42 to Deposition Transcript of
Meta		11/20/2024	
Meta		11/20/2024	
2.6		11/20/2024	Exhibit 43 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 44 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 45 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 46 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 47 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 48 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 49 to Deposition Transcript of
Meta		11/20/2024	Emmon 15 to Deposition Transcript of
Wicta		11/20/2021	Exhibit 50 to Deposition Transcript of
Meta		11/20/2024	
ivicia		11/20/2024	
Moto		11/20/2024	Exhibit 51 to Deposition Transcript of
Meta		11/20/2024	
		11/80/000	Exhibit 52 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 53 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 54 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 55 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 56 to Deposition Transcript of
Meta		11/20/2024	
		11,20,2027	

Defendant	Witness	Date	Description
Defendant	Withess		Exhibit 57 to Deposition Transcript of
Mata		11/20/2024	
Meta		11/20/2024	
3.5.		11/20/2024	Exhibit 58 to Deposition Transcript of
Meta		11/20/2024	
			Exhibit 59 to Deposition Transcript of
Meta		11/20/2024	
Meta	Lotte Rubaek	4/1/2025	Deposition Transcript of Lotte Rubaek
			Exhibit 1 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
			Exhibit 2 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
			Exhibit 3 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
			Exhibit 4 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
			Exhibit 5 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
1,1000	Zette Haettell	1, 1 0 1 0	Exhibit 6 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
ivicta	Lotte Ruodek	4/1/2023	Exhibit 7 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
Meta	Lotte Kuodek	4/1/2023	
Meta	Lotte Rubaek	4/1/2025	Exhibit 8 to Deposition Transcript of Lotte Rubaek
Meta	Lotte Rubaek	4/1/2023	
N. 6 - 4 -	I - 44 - D11-	4/1/2025	Exhibit 9 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
3.5		4/1/2025	Exhibit 10 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
			Exhibit 11 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
			Exhibit 12 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
			Exhibit 13 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
			Exhibit 14 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
			Exhibit 15 to Deposition Transcript of
Meta	Lotte Rubaek	4/1/2025	Lotte Rubaek
			Deposition Transcript of Margaret Gould
Meta	Margaret Gould Stewart	10/21/2024	1 2
			Exhibit 1 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
		10.21.2021	0

Defendant	Witness	Date	Description
Berendume	VVICIOSS		Exhibit 2 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
Ivicta	Wargaret Godia Stewart	10/21/2024	Exhibit 3 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
Ivicia	Margaret Godia Stewart	10/21/2024	Exhibit 4 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
Ivicia	Wangaret Godia Stewart	10/21/2024	Exhibit 5 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
Ivicta	Wargaret Gould Stewart	10/21/2024	Exhibit 6 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
Wicta	Wargaret Gould Stewart	10/21/2024	Exhibit 7 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
Wicta	Wargaret Gould Stewart	10/21/2024	Exhibit 8 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
Wicta	Wargaret Gould Stewart	10/21/2024	Exhibit 9 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
Wicta	Wargaret Gould Stewart	10/21/2024	Exhibit 10 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
Ivicta	Wargaret Godia Stewart	10/21/2024	Exhibit 11 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
IVICIA	Wangaret Godia Stewart	10/21/2021	Exhibit 12 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
- Titota	Wangaret Gould Stewart	10/21/2021	Exhibit 13 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
111014	Triangulet Godie Stevialt	10/21/2021	Exhibit 14 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
111010	Transparer Soura Stewart	10/21/2021	Exhibit 15 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
		- 0, - 1, - 0 - 1	Exhibit 16 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
	S. C.		Exhibit 17 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
	8		Exhibit 18 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
	<i>y</i>	,	Exhibit 19 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
			Exhibit 20 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
			Exhibit 21 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart

Defendant	Witness	Date	Description
Defendant	Withess	Date	1
N / - 4 -	M	10/21/2024	Exhibit 22 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
			Exhibit 23 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
			Exhibit 24 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
			Exhibit 26 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
			Exhibit 27 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
			Exhibit 28 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
			Exhibit 29 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
			Exhibit 30 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
			Exhibit 31 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
	5		Exhibit 32 to Deposition Transcript of
Meta	Margaret Gould Stewart	10/21/2024	Margaret Gould Stewart
Meta	Mark Zuckerberg	3/27/2025	Deposition Transcript of Mark Zuckerberg
			Exhibit 1 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
	1	0,21,202	Exhibit 2 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
TVICTO	Width Zuckerberg	3/21/2023	Exhibit 3 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
Ivicta	War Zuckerberg	3/21/2023	Exhibit 4 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
Wicta	Wark Zuckerberg	3/21/2023	Exhibit 5 to Deposition Transcript of
Meta	Mark Zuckerhere	3/27/2025	Mark Zuckerberg
ivicia	Mark Zuckerberg	3/2//2023	
Moto	Moule 7 volcombors	2/27/2025	Exhibit 6 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2023	Mark Zuckerberg
M - 4 -	M - 1- 71- 1	2/07/0005	Exhibit 7 to Deposition Transcript of
Meta	Mark Zuckerberg	5/21/2025	Mark Zuckerberg
2.5		0/05/0005	Exhibit 8 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
		0.45=45-5	Exhibit 9 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg

Defendant	t Witness	Date	Description
			Exhibit 10 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
	Ţ,		Exhibit 11 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 12 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 13 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 14 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 15 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 16 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 17 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 18 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 19 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 20 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
		- / /	Exhibit 21 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
		2/25/2025	Exhibit 22 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
3.6	M 1 7 1 1	2/27/2025	Exhibit 23 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
) N. (M 1 77 1 1	2/27/2025	Exhibit 24 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
Maka	M1- 7711	2/27/2025	Exhibit 25 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
Moto	Monte 7 years and	2/27/2025	Exhibit 26 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
Moto	Morle Zualranhana	2/27/2025	Exhibit 27 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
Moto	Morle Zuglzanhang	2/27/2025	Exhibit 28 to Deposition Transcript of Mark Zuckerberg
Meta	Mark Zuckerberg	3/21/2025	9
Moto	Morle Zualranhana	2/27/2025	Exhibit 29 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg

Defendant	t Witness	Date	Description
			Exhibit 30 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 31 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 32 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 33 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 34 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 35 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 36 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 37 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 38 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 39 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 40 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 41 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 42 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
3.5		2/25/2025	Exhibit 43 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
24	M 1 77 1 1	2/27/2025	Exhibit 44 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
N. 4	M 1 77 1 1	2/27/2025	Exhibit 45 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
Mata	Monte 7 yelsonbane	2/27/2025	Exhibit 46 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg Exhibit 47 to Denosition Transacint of
Meta	Mark Zuakanhana	3/27/2025	Exhibit 47 to Deposition Transcript of Mark Zuckerberg
ivicia	Mark Zuckerberg	3/2//2023	
Meta	Mark Zuckerberg	3/27/2025	Exhibit 48 to Deposition Transcript of Mark Zuckerberg
ivicia	IVIAIN ZUCKEIDEIG	3/2//2023	Exhibit 49 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
ivicia	Mark Zuckerberg	3/2//2023	Wark Zuckerberg

Defendant	t Witness	Date	Description
			Exhibit 50 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 51 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 52 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 53 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 54 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 55 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 56 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 57 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 58 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 59 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 60 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 61 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
			Exhibit 62 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
3.6		2/25/2025	Exhibit 63 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
2.6	N. 1.7. 1. 1	2/25/2025	Exhibit 64 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
N. f	M 1 77 1 1	2/27/2025	Exhibit 65 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
Mata	Moule 77 - 11	2/27/2025	Exhibit 66 to Deposition Transcript of
Meta	Mark Zuckerberg	3/21/2025	Mark Zuckerberg
Moto	Morle Zualranhana	2/27/2025	Exhibit 67 to Deposition Transcript of
Meta	Mark Zuckerberg	3/2//2023	Mark Zuckerberg
Meta	Mork Zuakanhana	3/27/2025	Exhibit 68 to Deposition Transcript of Mark Zuckerberg
ivieta	Mark Zuckerberg	3/21/2023	
Meta	Mark Zuakarhara	3/27/2025	Exhibit 69 to Deposition Transcript of Mark Zuckerberg
Meta	Mark Zuckerberg	3/21/2023	IVIAIR ZUCKEIDEIG

Defendant	Witness	Date	Description
Doronaum	VVICIO		Exhibit 70 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
TVICTA	With Edekerberg	3/21/2023	Exhibit 71 to Deposition Transcript of
Meta	Mark Zuckerberg	3/27/2025	Mark Zuckerberg
TVICta	With Edekerberg	3/21/2023	William Zuckeroeig
Meta	Mark Zuckerberg	3/28/2025	Deposition Transcript of Mark Zuckerberg
	_		Exhibit 72 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 73 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
	Ũ		Exhibit 74 to Deposition Transcript of
Meta	Mark Zuckerberg		Mark Zuckerberg
	J		Exhibit 75 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
	Ũ		Exhibit 76 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 77 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 78 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 79 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 80 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 81 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 82 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 83 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 84 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 85 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 86 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 87 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
			Exhibit 88 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg

Defendant	Witness	Date	Description
Defendant	Withess		Exhibit 89 to Deposition Transcript of
Meta	Mark Zuckerberg	3/28/2025	Mark Zuckerberg
Meta	Wark Zuckerberg	3/28/2023	Exhibit 90 to Deposition Transcript of
Meta	Mark Zuckerberg	2/28/2025	Mark Zuckerberg
Micia	Wark Zuckerberg	3/28/2023	
Meta	Mark Zuckerberg	3/28/2025	Exhibit 91 to Deposition Transcript of Mark Zuckerberg
Meta	Wark Zuckerberg	3/28/2023	Deposition Transcript of Michael
Meta	Michael Rothschild	1/21/2025	Rothschild
Wicta	Wichael Rouiseilla	1/21/2023	Exhibit 1 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
Wicta	Wichael Rouiseilla	1/21/2023	Exhibit 2 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
Wicta	Wienaci Romscinia	1/21/2023	Exhibit 3 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
1victa	Tylichaet Romseima	1/21/2025	Exhibit 4 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
		3, 2, 2, 2, 2, 2	Exhibit 5 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 6 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 7 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 8 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 9 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 10 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 11 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 12 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 13 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
		4 /2 / / 2 / 2	Exhibit 14 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
2.6		1/04/000=	Exhibit 15 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
3.4	M. I. I.D. d. 1911	1/01/2027	Exhibit 16 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild

Defendant	Witness	Date	Description
			Exhibit 17 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 18 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 19 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 20 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Exhibit 21 to Deposition Transcript of
Meta	Michael Rothschild	1/21/2025	Michael Rothschild
			Deposition Transcript of Michael
Meta	Michael Rothschild	1/22/2025	Rothschild
			Exhibit 22 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 23 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 24 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 25 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 26 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 27 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 28 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 29 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 30 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
		1./02./20==	Exhibit 31 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
3.5			Exhibit 32 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
3.5	NC 1 10 1 111	1 /22 /2 2 = =	Exhibit 33 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
3.5		4 /00 /00 =	Exhibit 34 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 35 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild

Defendant	Witness	Date	Description
			Exhibit 36 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 37 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 38 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 39 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 40 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 41 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 42 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 43 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 44 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 45 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 46 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 47 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 48 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 49 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 50 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 51 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 52 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 53 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 54 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 55 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild

Defendant	Witness	Date	Description
Defendant	Withess	Date	
2.5.4	NC 1 1D 4 111	1/22/2025	Exhibit 56 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 57 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 58 to Deposition Transcript of
Meta	Michael Rothschild	1/22/2025	Michael Rothschild
			Exhibit 59 to Deposition Transcript of
Meta	Michael Rothschild		Michael Rothschild
Meta		1/28/2025	Deposition Transcript of
			Exhibit 1 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 2 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 3 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 4 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 5 to Deposition Transcript of
Meta		1/28/2025	
1,1000		1/20/2020	Exhibit 6 to Deposition Transcript of
Meta		1/28/2025	
TVICTA		1/20/2023	Exhibit 7 to Deposition Transcript of
Meta		1/28/2025	
Meta		1/28/2023	Exhibit 8 to Deposition Transcript of
Meta		1/28/2025	
Meta		1/28/2023	
N. 6 - 4 -		1/29/2025	Exhibit 9 to Deposition Transcript of
Meta		1/28/2025	
		1/20/2025	Exhibit 10 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 11 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 12 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 13 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 14 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 15 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 16 to Deposition Transcript of
Meta		1/28/2025	

Defendant Witness Date Description Exhibit 17 to Deposition Transcript of Meta 1/28/2025 Exhibit 18 to Deposition Transcript of Meta Exhibit 19 to Deposition Transcript of Meta 1/28/2025 Exhibit 20 to Deposition Transcript of Meta 1/28/2025 Exhibit 21 to Deposition Transcript of Meta 1/28/2025 Exhibit 21 to Deposition Transcript of Meta 1/28/2025 Exhibit 22 to Deposition Transcript of Meta Exhibit 22 to Deposition Transcript of Meta Exhibit 23 to Deposition Transcript of	Detellualle	WITHACC	Date	Description
Meta 1/28/2025 Exhibit 18 to Deposition Transcript of 1/28/2025 Exhibit 19 to Deposition Transcript of Meta 1/28/2025 Exhibit 20 to Deposition Transcript of Meta 1/28/2025 Exhibit 21 to Deposition Transcript of Meta 1/28/2025 Exhibit 21 to Deposition Transcript of Meta 1/28/2025 Exhibit 22 to Deposition Transcript of Meta		Witness	Date	
Meta 1/28/2025 Exhibit 19 to Deposition Transcript of Meta Exhibit 20 to Deposition Transcript of Meta 1/28/2025 Exhibit 21 to Deposition Transcript of Meta 1/28/2025 Exhibit 21 to Deposition Transcript of Meta 1/28/2025 Exhibit 22 to Deposition Transcript of Meta	Meta		1/28/2025	
Meta 1/28/2025 Exhibit 19 to Deposition Transcript of Meta Exhibit 20 to Deposition Transcript of Meta 1/28/2025 Exhibit 21 to Deposition Transcript of Meta 1/28/2025 Exhibit 21 to Deposition Transcript of Meta 1/28/2025 Exhibit 22 to Deposition Transcript of Meta				Exhibit 18 to Deposition Transcript of
Meta 1/28/2025 Exhibit 20 to Deposition Transcript of Meta 1/28/2025 Exhibit 21 to Deposition Transcript of Meta 1/28/2025 Exhibit 22 to Deposition Transcript of Meta 1/28/2025	Meta		1/28/2025	
Exhibit 20 to Deposition Transcript of Meta Exhibit 20 to Deposition Transcript of Exhibit 21 to Deposition Transcript of Meta Exhibit 22 to Deposition Transcript of Meta 1/28/2025				Exhibit 19 to Deposition Transcript of
Meta 1/28/2025 Exhibit 21 to Deposition Transcript of Meta 1/28/2025 Exhibit 22 to Deposition Transcript of Meta 1/28/2025	Meta		1/28/2025	
Exhibit 21 to Deposition Transcript of Meta Exhibit 21 to Deposition Transcript of Exhibit 22 to Deposition Transcript of Meta 1/28/2025				Exhibit 20 to Deposition Transcript of
Meta 1/28/2025 Exhibit 22 to Deposition Transcript of 1/28/2025	Meta		1/28/2025	
Meta 1/28/2025 Exhibit 22 to Deposition Transcript of 1/28/2025				Exhibit 21 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	=
Meta 1/28/2025				Exhibit 22 to Deposition Transcript of
Exhibit 23 to Deposition Transcript of	Meta		1/28/2025	
				Exhibit 23 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 24 to Deposition Transcript of				Exhibit 24 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 25 to Deposition Transcript of				Exhibit 25 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 26 to Deposition Transcript of				Exhibit 26 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	-
Exhibit 27 to Deposition Transcript of				Exhibit 27 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 28 to Deposition Transcript of				Exhibit 28 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 29 to Deposition Transcript of				Exhibit 29 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 30 to Deposition Transcript of				Exhibit 30 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 31 to Deposition Transcript of				Exhibit 31 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 32 to Deposition Transcript of				Exhibit 32 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 33 to Deposition Transcript of				Exhibit 33 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 34 to Deposition Transcript of				Exhibit 34 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 35 to Deposition Transcript of				Exhibit 35 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	
Exhibit 36 to Deposition Transcript of				Exhibit 36 to Deposition Transcript of
Meta 1/28/2025	Meta		1/28/2025	

Defendant	Witness	Date	Description
			Exhibit 37 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 38 to Deposition Transcript of
Meta		1/28/2025	
	i		
Meta		1/29/2025	Deposition Transcript of
			Exhibit 39 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit 40 to Deposition Transcript of
Meta		1/29/2025	1
1,10,11	•	1,23,2023	Exhibit 41 to Deposition Transcript of
N		1/20/2025	Exhibit 41 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit 42 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit 43 to Deposition Transcript of
Meta		1/29/2025	•
	i		Exhibit 44 to Deposition Transcript of
M-4-		1/20/2025	
Meta		1/29/2025	
			Exhibit 45 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit 46 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit 47 to Deposition Transcript of
Meta		1/29/2025	Exhibit 47 to Deposition Transcript of
Meta		1/29/2023	T 1711 40 4 D 31 T T 3 4 6
			Exhibit 48 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit 49 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit 50 to Deposition Transcript of
Meta		1/29/2025	
Mota		1/2//2023	
		1/20/2025	Exhibit PM1 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit PM4 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit PM5 to Deposition Transcript of
Meta		1/29/2025	
1110111		1,27,2023	
26-4-		1/20/2025	Exhibit PM9 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit PM10 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit PM11 to Deposition Transcript of
Meta		1/29/2025	
1,10111		1/2//2023	

Defendant	Witness	Date	Description
Defendant	Withess	Date	
		1/20/2025	Exhibit PM14 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit PM21 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit PM23 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit PM28 to Deposition Transcript of
Meta		1/29/2025	
			Exhibit PM30 to Deposition Transcript of
Meta		1/29/2025	
Meta	Nick Clegg		Deposition Transcript of Nick Clegg
1,10,00	1,1011 61088	3,20,2020	Exhibit 1 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
ivicta	THER Clegg	3/20/2023	Exhibit 2 to Deposition Transcript of
Meta	Niels Class	2/20/2025	Nick Clegg
Meta	Nick Clegg	3/20/2023	
	27' 1 61		Exhibit 3 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 4 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 5 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 6 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 7 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 8 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
Wieta	THER CICSS	3/20/2023	Exhibit 9 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
Meta	Nick Clegg	3/20/2023	
26.4	NT: 1 C1	2/20/2025	Exhibit 10 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 11 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 12 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 13 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 14 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 15 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
Micia	THER CIESS	312012023	THER CIUSS

Defendant	Witness	Date	Description
			Exhibit 16 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 17 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 18 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 19 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 20 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 21 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 22 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 23 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 24 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 25 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 26 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 27 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 28 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 29 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 30 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 31 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 32 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 33 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 34 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 35 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg

Defendant	Witness	Date	Description
Determine	- V TOTAL CS		Exhibit 36 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
	1	0,20,202	Exhibit 37 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 38 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 39 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 40 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 41 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 42 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 43 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 44 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 45 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 46 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 47 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 48 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
			Exhibit 49 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
2.5	N. 1 C.	2/20/2025	Exhibit 50 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
2.4	Nr. 1. Cl	2/20/2025	Exhibit 51 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
Mata	Ni als Class	2/20/2025	Exhibit 52 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
Meta	Niek Class	2/20/2025	Exhibit 53 to Deposition Transcript of Nick Clegg
ivicia	Nick Clegg	3/20/2023	30
Meta	Nick Class	2/20/2025	Exhibit 54 to Deposition Transcript of Nick Clegg
ivicia	Nick Clegg	3/20/2023	Exhibit 55 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
1 V 1Cta	ITTICK CIESS	3/20/2023	I TICK CICES

Defendant	Witness	Date	Description
Defendant	Withess		Exhibit 56 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
Wicta	THER CIESS	3/20/2023	Exhibit 57 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
Wicta	TVICK CICES	3/20/2023	Exhibit 58 to Deposition Transcript of
Meta	Nick Clegg	3/20/2025	Nick Clegg
Meta	Nick Clegg		Deposition Transcript of Nick Clegg
Wicta	TVICK CICES	3/21/2023	Exhibit 38 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
Ivicia	Trick Cicgg	3/21/2023	Exhibit 39 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
Wicia	Nick Clegg	3/21/2023	Exhibit 40 to Deposition Transcript of
Meta	Nick Class	2/21/2025	Nick Clegg
Wieta	Nick Clegg	3/21/2023	
Mata	Niels Class	2/21/2025	Exhibit 41 to Deposition Transcript of
Meta	Nick Clegg	3/21/2023	Nick Clegg
Maka	N: -1- C1	2/21/2025	Exhibit 63 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
) N	N' 1 CI	2/21/2025	Exhibit 64 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
3.4	N' 1 CI	2/21/2025	Exhibit 65 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
		2/21/2025	Exhibit 70 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
		2/24/2027	Exhibit 71 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 72 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 73 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 74 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 75 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 76 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 77 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 78 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 79 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg

Defendant	Witness	Date	Description
Defendant	Widiess	Date	Exhibit 80 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
ivicta	Tylek Ciegg	3/21/2023	Exhibit 81 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
Wicta	Tylek Ciegg	3/21/2023	Exhibit 82 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
ivicta	THER CIEgg	3/21/2023	Exhibit 83 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
- Ivicta	THER CIESS	3/21/2023	Exhibit 84 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
1,1010	THER CICES	5/21/2020	Exhibit 85 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
272000	111011 01088	0/21/2020	Exhibit 86 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 87 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
	00		Exhibit 88 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 89 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 90 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Exhibit 91 to Deposition Transcript of
Meta	Nick Clegg	3/21/2025	Nick Clegg
			Deposition Transcript of
Meta		11/7/2024	
			Exhibit 1 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 2 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 3 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 4 to Deposition Transcript of
Meta		11/7/2024	
2.5			Exhibit 5 to Deposition Transcript of
Meta		11/7/2024	
		11/5/205	Exhibit 6 to Deposition Transcript of
Meta		11/7/2024	
N. (11/7/2024	Exhibit 7 to Deposition Transcript of
Meta		11/7/2024	

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 8 to Deposition Transcript of
Meta		11/7/2024	
Wicta		11///2024	Exhibit 9 to Deposition Transcript of
Meta		11/7/2024	1
Meta		11///2024	Exhibit 10 to Deposition Transcript of
Meta		11/7/2024	
Meta		11///2024	
Mata		11/7/2024	Exhibit 11 to Deposition Transcript of
Meta		11///2024	
Moto		11/7/2024	Exhibit 12 to Deposition Transcript of
Meta		11///2024	
N f = 4 =		11/7/2024	Exhibit 13 to Deposition Transcript of
Meta		11/7/2024	
2.5.4		11/7/2024	Exhibit 14 to Deposition Transcript of
Meta		11/7/2024	
3.5.		11/5/2021	Exhibit 15 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 16 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 17 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 18 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 19 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 20 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 21 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 22 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 23 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 24 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 25 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 26 to Deposition Transcript of
Meta		11/7/2024	
			Exhibit 27 to Deposition Transcript of
Meta		11/7/2024	

Defendant	Witness	Date	Description
Detendant	VV Telless		Exhibit 28 to Deposition Transcript of
Meta		11/7/2024	
Wicta		11///2024	Exhibit 29 to Deposition Transcript of
Meta		11/7/2024	
ivicta		11///2024	Exhibit 30 to Deposition Transcript of
Meta		11/7/2024	
Wieta		11///2024	Exhibit 31 to Deposition Transcript of
Meta		11/7/2024	
Meta		11///2024	
Meta		11/7/2024	Exhibit 32 to Deposition Transcript of
Meta		11///2024	
Mata		11/9/2024	Deposition Transcript of
Meta		11/8/2024	
N -4-		11/9/2024	Exhibit 33 to Deposition Transcript of
Meta		11/8/2024	
2.5		11/0/2024	Exhibit 34 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 35 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 36 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 37 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 38 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 39 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 40 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 41 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 42 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 43 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 44 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 45 to Deposition Transcript of
Meta		11/8/2024	
			Exhibit 46 to Deposition Transcript of
Meta		11/8/2024	

Defendant	Witness	Date	Description
Detendant	VV ICHC55	Date	Exhibit 47 to Deposition Transcript of
Meta		11/8/2024	
Wicta		11/0/2024	Exhibit 48 to Deposition Transcript of
Meta		11/8/2024	
Meta		11/6/2024	
Meta		11/8/2024	Exhibit 49 to Deposition Transcript of
			Deposition Transcript of
Meta		3/3/2023	1
24-4-		2/2/2025	Exhibit 1 to Deposition Transcript of
Meta		3/3/2025	
3.6.		2/2/2025	Exhibit 2 to Deposition Transcript of
Meta		3/3/2025	
		- /- /	Exhibit 3 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 4 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 5 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 6 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 7 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 8 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 9 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 10 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 11 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 12 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 13 to Deposition Transcript of
Meta		3/3/2025	
		5/5/2025	Exhibit 14 to Deposition Transcript of
Meta		3/3/2025	
Ivicia		31312023	Exhibit 15 to Deposition Transcript of
Meta		3/3/2025	
IVICIA		3/3/2023	
Moto		2/2/2025	Exhibit 16 to Deposition Transcript of
Meta		3/3/2025	
2.6-4		2/2/2025	Exhibit 17 to Deposition Transcript of
Meta		3/3/2025	

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 18 to Deposition Transcript of
Meta		3/3/2025	
Wicta		3/3/2023	Exhibit 19 to Deposition Transcript of
Meta		3/3/2025	
Tyleta		3/3/2023	Exhibit 20 to Deposition Transcript of
Meta		3/3/2025	
1,1000		3,2,2020	Exhibit 21 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 22 to Deposition Transcript of
Meta		3/3/2025	
	-		Exhibit 23 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 24 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 25 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 26 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 27 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 28 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 29 to Deposition Transcript of
Meta		3/3/2025	
			Exhibit 30 to Deposition Transcript of
Meta		3/3/2025	
		- /- /	Exhibit 31 to Deposition Transcript of
Meta		3/3/2025	
Mata		2/2/2025	Exhibit 32 to Deposition Transcript of
Meta		3/3/2025	
Moto		3/3/2025	Exhibit 33 to Deposition Transcript of
Meta		3/3/2023	
Meta		3/3/2025	Exhibit 34 to Deposition Transcript of
MICIA		3/3/2023	Exhibit 35 to Deposition Transcript of
Meta		3/3/2025	
111010		31312023	Exhibit 36 to Deposition Transcript of
Meta		3/3/2025	
111014		3/3/2023	Exhibit 37 to Deposition Transcript of
Meta		3/3/2025	
	1	5.5.2025	

Defendant	Witness	Date	Description
Defendant	Vitness	Date	Exhibit 38 to Deposition Transcript of
Meta		3/3/2025	
Meta		3/3/2023	
3.6.4		10/10/0004	Deposition Transcript of
Meta		12/12/2024	
			Exhibit 1 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 2 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 3 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 4 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 5 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 6 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 7 to Deposition Transcript of
Meta		12/12/2024	
2,2000		12/12/2021	Exhibit 8 to Deposition Transcript of
Meta		12/12/2024	
ivicia		12/12/2024	Exhibit 9 to Deposition Transcript of
Meta		12/12/2024	
Meta		12/12/2024	Exhibit 10 to Deposition Transcript of
Meta		12/12/2024	
Meta		12/12/2024	
N f - 4 -		12/12/2024	Exhibit 11 to Deposition Transcript of
Meta		12/12/2024	
3.6.4		10/10/0004	Exhibit 12 to Deposition Transcript of
Meta		12/12/2024	
		10/20/202	Exhibit 13 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 14 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 15 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 16 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 17 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 18 to Deposition Transcript of
Meta		12/12/2024	

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 19 to Deposition Transcript of
Meta		12/12/2024	
Ivicia		12/12/2024	Exhibit 20 to Deposition Transcript of
Meta		12/12/2024	
Wicta		12/12/2024	Exhibit 21 to Deposition Transcript of
Meta		12/12/2024	
Wicta		12/12/2024	Exhibit 22 to Deposition Transcript of
Meta		12/12/2024	
Wieta		12/12/2021	Exhibit 23 to Deposition Transcript of
Meta		12/12/2024	
Wick		12/12/2021	Exhibit 24 to Deposition Transcript of
Meta		12/12/2024	
1710tu		12/12/2021	Exhibit 25 to Deposition Transcript of
Meta		12/12/2024	
	-	12/12/2021	Exhibit 26 to Deposition Transcript of
Meta		12/12/2024	
2,20,0			Exhibit 27 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 28 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 29 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 30 to Deposition Transcript of
Meta		12/12/2024	
			Exhibit 31 to Deposition Transcript of
Meta		12/12/2024	·
			Exhibit 32 to Deposition Transcript of
Meta		12/12/2024	
			Deposition Transcript of
Meta		12/13/2024	
			Defense Exhibit 1 to Deposition
Meta		12/13/2024	Transcript of
			Defense Exhibit 2 to Deposition
Meta		12/13/2024	Transcript of
			Defense Exhibit 3 to Deposition
Meta		12/13/2024	Transcript of
			Defense Exhibit 4 to Deposition
Meta		12/13/2024	Transcript of
			Defense Exhibit 5 to Deposition
Meta		12/13/2024	Transcript of

Defendant	Witness	Date	Description
Defendant	Witness	Date	Defense Exhibit 6 to Deposition
Moto		12/12/2024	Transcript of
Meta		12/13/2024	<u> </u>
N f = 4 =		12/12/2024	Defense Exhibit 7 to Deposition
Meta		12/13/2024	Transcript of
N f - 4 -		12/12/2024	Exhibit 33 to Deposition Transcript of
Meta		12/13/2024	
Mada		12/12/2024	Exhibit 34 to Deposition Transcript of
Meta		12/13/2024	
Mata		12/12/2024	Exhibit 35 to Deposition Transcript of
Meta		12/13/2024	
Mata		12/13/2024	Exhibit 36 to Deposition Transcript of
Meta		12/13/2024	
N f = 4 =		12/12/2024	Exhibit 37 to Deposition Transcript of
Meta		12/13/2024	
Mada		12/12/2024	Exhibit 38 to Deposition Transcript of
Meta		12/13/2024	
N f - 4 -		12/12/2024	Exhibit 39 to Deposition Transcript of
Meta		12/13/2024	
24-4-		12/12/2024	Exhibit 40 to Deposition Transcript of
Meta		12/13/2024	
D 6-4-		10/12/2024	Exhibit 41 to Deposition Transcript of
Meta		12/13/2024	
2.5.4		10/12/2024	Exhibit 42 to Deposition Transcript of
Meta		12/13/2024	
N f - 4 -		12/12/2024	Exhibit 43 to Deposition Transcript of
Meta		12/13/2024	
Moto		10/12/2024	Exhibit 44 to Deposition Transcript of
Meta Meta		12/13/2024	
Meta		12/3/2024	Deposition Transcript of
Moto		12/5/2024	Exhibit 1 to Deposition Transcript of
Meta		12/5/2024	
Mata		12/5/2024	Exhibit 2 to Deposition Transcript of
Meta		12/5/2024	
Mata		12/5/2024	Exhibit 3 to Deposition Transcript of
Meta		12/5/2024	
Moto		12/5/2024	Exhibit 4 to Deposition Transcript of
Meta		12/3/2024	
Moto		12/5/2024	Exhibit 5 to Deposition Transcript of
Meta		12/5/2024	
24-4-		10/5/0004	Exhibit 6 to Deposition Transcript of
Meta		12/5/2024	

Defendant	Witness	Data	Description
Defendant	witness	Date	
Meta		12/5/2024	Exhibit 7 to Deposition Transcript of
			Exhibit 8 to Deposition Transcript of
Meta		12/5/2024	
			Exhibit 9 to Deposition Transcript of
Meta		12/5/2024	
			Exhibit 10 to Deposition Transcript of
Meta		12/5/2024	
1v1cta		12/3/2021	Exhibit 11 to Deposition Transcript of
Moto		12/5/2024	
Meta		12/3/2024	
			Exhibit 12 to Deposition Transcript of
Meta		12/5/2024	
			Exhibit 13 to Deposition Transcript of
Meta		12/5/2024	
			Exhibit 14 to Deposition Transcript of
Meta		12/5/2024	
2,2000		12/0/2021	Exhibit 15 to Deposition Transcript of
Moto		12/5/2024	
Meta		12/3/2024	
			Exhibit 16 to Deposition Transcript of
Meta		12/5/2024	
Meta		12/6/2024	Deposition Transcript of
			Exhibit 17 to Deposition Transcript of
Meta		12/6/2024	
			Exhibit 18 to Deposition Transcript of
Meta		12/6/2024	
rvicta		12/0/2024	Exhibit 19 to Deposition Transcript of
2.5.4		10/6/2024	
Meta		12/6/2024	
			Exhibit 20 to Deposition Transcript of
Meta		12/6/2024	
			Exhibit 21 to Deposition Transcript of
Meta		12/6/2024	
			Exhibit 22 to Deposition Transcript of
Meta		12/6/2024	
1.10111		12, 0, 2024	Exhibit 23 to Deposition Transcript of
Mote		12/6/2024	
Meta		12/6/2024	
			Exhibit 24 to Deposition Transcript of
Meta		12/6/2024	
			Exhibit 25 to Deposition Transcript of
Meta		12/6/2024	
			Exhibit 26 to Deposition Transcript of
Meta		12/6/2024	
1,1014		12/0/2024	

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 27 to Deposition Transcript of
Meta		12/6/2024	
Meta		12/0/2024	
N -4-		12/6/2024	Exhibit 28 to Deposition Transcript of
Meta		12/6/2024	
			Exhibit 29 to Deposition Transcript of
Meta		12/6/2024	
			Exhibit 30 to Deposition Transcript of
Meta		12/6/2024	
			Exhibit 31 to Deposition Transcript of
Meta		12/6/2024	
Meta		2/11/2025	Deposition Transcript of
			Exhibit 1 to Deposition Transcript of
Meta		2/11/2025	
			Exhibit 2 to Deposition Transcript of
Meta		2/11/2025	
1,10,11		2,11,2025	Exhibit 3 to Deposition Transcript of
Meta		2/11/2025	Exhibit 5 to Deposition Transcript of
Wieta		2/11/2023	Exhibit 4 to Deposition Transporint of
M-4-		2/11/2025	Exhibit 4 to Deposition Transcript of
Meta		2/11/2025	
		- / /	Exhibit 5 to Deposition Transcript of
Meta		2/11/2025	
			Exhibit 6 to Deposition Transcript of
Meta		2/11/2025	
			Exhibit 7 to Deposition Transcript of
Meta		2/11/2025	
			Exhibit 8 to Deposition Transcript of
Meta		2/11/2025	
			Exhibit 9 to Deposition Transcript of
Meta		2/11/2025	
			Exhibit 10 to Deposition Transcript of
Meta		2/11/2025	
			Exhibit 11 to Deposition Transcript of
Meta		2/11/2025	
2.1014		2,11,2023	Exhibit 12 to Deposition Transcript of
Meta		2/11/2025	Damon 12 to Deposition Hauscript of
ivicia		2/11/2023	Exhibit 12 to Denosition Transmint of
Moto		2/11/2025	Exhibit 13 to Deposition Transcript of
Meta		2/11/2025	
		0/11/000=	Exhibit 14 to Deposition Transcript of
Meta		2/11/2025	
			Exhibit 15 to Deposition Transcript of
Meta		2/11/2025	

Defendant	Witness	Date	Description
		2	Exhibit 16 to Deposition Transcript of
Meta		2/11/2025	op on the state of
			Exhibit 17 to Deposition Transcript of
Meta		2/11/2025	
			Exhibit 18 to Deposition Transcript of
Meta		2/11/2025	
			Exhibit 19 to Deposition Transcript of
Meta	_	2/11/2025	
			Exhibit 20 to Deposition Transcript of
Meta		2/11/2025	
Meta		2/12/2025	Deposition Transcript of
			Exhibit 21 to Deposition Transcript of
Meta		2/12/2025	
2.5		0/10/0005	Exhibit 22 to Deposition Transcript of
Meta		2/12/2025	
N f - 4 -		2/12/2025	Exhibit 23 to Deposition Transcript of
Meta		2/12/2025	Falilia 244 - Danasiti an Tanasaint of
Meta		2/12/2025	Exhibit 24 to Deposition Transcript of
Meta		2/12/2023	Exhibit 25 to Deposition Transcript of
Meta		2/12/2025	Exhibit 23 to Deposition Transcript of
ivicia		2/12/2023	Exhibit 26 to Deposition Transcript of
Meta		2/12/2025	Exhibit 20 to Deposition Transcript of
2/2011		2,12,2020	Exhibit 27 to Deposition Transcript of
Meta		2/12/2025	
			Exhibit 28 to Deposition Transcript of
Meta		2/12/2025	
			Exhibit 29 to Deposition Transcript of
Meta		2/12/2025	
			Exhibit 30 to Deposition Transcript of
Meta		2/12/2025	
			Exhibit 31 to Deposition Transcript of
Meta		2/12/2025	
		- 10 - 15	Exhibit 32 to Deposition Transcript of
Meta		2/12/2025	T 17 is an a D
		0/10/2025	Exhibit 33 to Deposition Transcript of
Meta		2/12/2025	D 177244 D 37 D 37
Mata		2/12/2025	Exhibit 34 to Deposition Transcript of
Meta		2/12/2025	Deposition Transcript of
Meta		11/18/2024	Deposition Transcript of

Defendant	Witness	Date	Description
Defendant		Date	Exhibit 1 to Deposition Transcript of
Meta		11/18/2024	* *
Meta		11/16/2024	
Meta		11/18/2024	Exhibit 2 to Deposition Transcript of
Meta		11/16/2024	
Moto		11/18/2024	Exhibit 3 to Deposition Transcript of
Meta		11/18/2024	
Mata		11/19/2024	Exhibit 4 to Deposition Transcript of
Meta		11/18/2024	
N f - 4 -		11/19/2024	Exhibit 5 to Deposition Transcript of
Meta		11/18/2024	
24		11/10/2024	Exhibit 6 to Deposition Transcript of
Meta		11/18/2024	
3.5.4		11/10/2024	Exhibit 7 to Deposition Transcript of
Meta		11/18/2024	
3.5.		11/10/2024	Exhibit 8 to Deposition Transcript of
Meta		11/18/2024	
3.6.4		11/10/2024	Exhibit 9 to Deposition Transcript of
Meta		11/18/2024	
		/ /	Exhibit 10 to Deposition Transcript of
Meta		11/18/2024	
		11/10/2024	Exhibit 11 to Deposition Transcript of
Meta		11/18/2024	
3.5.		11/10/2024	Exhibit 12 to Deposition Transcript of
Meta		11/18/2024	
			Exhibit 13 to Deposition Transcript of
Meta		11/18/2024	
		/ /	Exhibit 14 to Deposition Transcript of
Meta		11/18/2024	
2.5.4		11/10/2021	Exhibit 15 to Deposition Transcript of
Meta		11/18/2024	
		11/10/2021	Exhibit 16 to Deposition Transcript of
Meta		11/18/2024	
		11/10/202	Exhibit 17 to Deposition Transcript of
Meta		11/18/2024	
		11/10/2021	Exhibit 18 to Deposition Transcript of
Meta		11/18/2024	
		11/10/202	Exhibit 19 to Deposition Transcript of
Meta		11/18/2024	
		44/46/555	Exhibit 20 to Deposition Transcript of
Meta		11/18/2024	

Defendant	Witness	Date	Description
Detendant	VV Ithess	Date	Exhibit 21 to Deposition Transcript of
Meta		11/18/2024	
1,10111		11/10/2021	Exhibit 22 to Deposition Transcript of
Meta		11/18/2024	
TVICTO .		11/10/2021	Exhibit 23 to Deposition Transcript of
Meta		11/18/2024	
1,10111		11/10/2021	Exhibit 24 to Deposition Transcript of
Meta		11/18/2024	
1,1000		11,10,2021	Exhibit 25 to Deposition Transcript of
Meta		11/18/2024	
2.2010		11/10/2021	Exhibit 26 to Deposition Transcript of
Meta		11/18/2024	
			Exhibit 27 to Deposition Transcript of
Meta		11/18/2024	
			Exhibit 28 to Deposition Transcript of
Meta		11/18/2024	
			Exhibit 29 to Deposition Transcript of
Meta		11/18/2024	
			Exhibit 30 to Deposition Transcript of
Meta		11/18/2024	
			Exhibit 31 to Deposition Transcript of
Meta		11/18/2024	
			Exhibit 32 to Deposition Transcript of
Meta		11/18/2024	
			Exhibit 33 to Deposition Transcript of
Meta		11/18/2024	
			Exhibit 34 to Deposition Transcript of
Meta		11/18/2024	
Meta		11/19/2024	Deposition Transcript of
			Exhibit 35 to Deposition Transcript of
Meta		11/19/2024	
			Exhibit 36 to Deposition Transcript of
Meta		11/19/2024	
			Exhibit 37 to Deposition Transcript of
Meta		11/19/2024	
			Exhibit 38 to Deposition Transcript of
Meta		11/19/2024	
			Exhibit 39 to Deposition Transcript of
Meta		11/19/2024	
			Exhibit 40 to Deposition Transcript of
Meta		11/19/2024	

Defendant	Witness	Date	Description
Detendant	Withess	Date	Exhibit 41 to Deposition Transcript of
Meta		11/19/2024	
Meta		11/19/2024	
N f = 4 =		11/10/2024	Exhibit 42 to Deposition Transcript of
Meta		11/19/2024	
		11/10/2024	Exhibit 43 to Deposition Transcript of
Meta		11/19/2024	
			Exhibit 44 to Deposition Transcript of
Meta		11/19/2024	
			Deposition Transcript of Vaishnavi
Meta	Vaishnavi Jayakumar	1/30/2025	Jayakumar
			Exhibit 1 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
			Exhibit 2 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
			Exhibit 3 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
			Exhibit 4 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
			Exhibit 5 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
			Exhibit 6 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
	·		Exhibit 7 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
			Exhibit 8 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
	j		Exhibit 9 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
			Exhibit 10 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
			Exhibit 11 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
1,1000	, and and an	1/00/2020	Exhibit 12 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
1/1014	, aisimavi sayakumai	173072023	Exhibit 13 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
1/1014	vaisimavi sayakumai	1/30/2023	Exhibit 14 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
IVICIA	v aisimavi Jayakumai	1/30/2023	
Moto	Voishnari I	1/20/2025	Exhibit 15 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar

Witness	Data	Description
Withess	Date	•
Voichnovi Iovolzumor	1/20/2025	Exhibit 16 to Deposition Transcript of Vaishnavi Jayakumar
v aisiiiavi Jayakuillai	1/30/2023	•
Vaishnavi Iavalauman	1/20/2025	Exhibit 17 to Deposition Transcript of Vaishnavi Jayakumar
v aisiiiavi Jayakuillai	1/30/2023	
Voichnovi Iovolzumor	1/20/2025	Exhibit 18 to Deposition Transcript of Vaishnavi Jayakumar
v aisiiiavi Jayakuillai	1/30/2023	
Vaishnavi Iavalauman	1/20/2025	Exhibit 19 to Deposition Transcript of Vaishnavi Jayakumar
v aisimavi Jayakumai	1/30/2023	7
Voichnovi Iovolzumor	1/20/2025	Exhibit 20 to Deposition Transcript of Vaishnavi Jayakumar
v aisiiiavi Jayakuillai	1/30/2023	
Waishnayi Iayalamar	1/20/2025	Exhibit 21 to Deposition Transcript of Vaishnavi Jayakumar
v aisimavi Jayakumai	1/30/2023	•
Vojehnovi Iovokumor	1/20/2025	Exhibit 22 to Deposition Transcript of Vaishnavi Jayakumar
v aisiiiavi Jayakuillai	1/30/2023	
Vojehnovi Iovokumor	1/20/2025	Exhibit 23 to Deposition Transcript of Vaishnavi Jayakumar
v aisimavi Jayakumai	1/30/2023	
Vojehnovi Iovokumor	1/20/2025	Exhibit 24 to Deposition Transcript of Vaishnavi Jayakumar
V alsiliavi Jayakullai	1/30/2023	Exhibit 25 to Deposition Transcript of
Vaichnavi Iavakumar	1/30/2025	Vaishnavi Jayakumar
v aisiiiavi Jayakuiiiai	1/30/2023	Exhibit 26 to Deposition Transcript of
Vaichnavi Javakumar	1/30/2025	Vaishnavi Jayakumar
v aisimavi sayakumai	1/30/2023	Exhibit 27 to Deposition Transcript of
Vaishnavi Javakumar	1/30/2025	Vaishnavi Jayakumar
v disiniavi sayakaniai	1/30/2023	Exhibit 28 to Deposition Transcript of
Vaishnavi Iavakumar	1/30/2025	Vaishnavi Jayakumar
v disiniavi sayakamai	1/30/2023	Exhibit 29 to Deposition Transcript of
Vaishnavi Iavakumar	1/30/2025	Vaishnavi Jayakumar
- month of distinct	2,00,2020	Exhibit 30 to Deposition Transcript of
Vaishnavi Javakumar	1/30/2025	Vaishnavi Jayakumar
		Exhibit 31 to Deposition Transcript of
Vaishnavi Javakumar	1/30/2025	Vaishnavi Jayakumar
		Exhibit 32 to Deposition Transcript of
Vaishnavi Javakumar	1/30/2025	Vaishnavi Jayakumar
		Exhibit 33 to Deposition Transcript of
Vaishnavi Jayakumar	1/30/2025	Vaishnavi Jayakumar
J		Exhibit 34 to Deposition Transcript of
Vaishnavi Javakumar	1/30/2025	Vaishnavi Jayakumar
, <u>.</u>		Deposition Transcript of Vaishnavi
Vaishnavi Jayakumar	1/31/2025	Jayakumar
	Vaishnavi Jayakumar Vaishnavi Jayakumar	Vaishnavi Jayakumar 1/30/2025

Defendant	Witness	Date	Description
Defenuant	Withess	Date	_
M - 4 -	V-1-1	1/21/2025	Exhibit 35 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
N. f	77 ' 1 ' 7 1	1 /21 /2025	Exhibit 36 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 37 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 38 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 39 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 40 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 41 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 42 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 43 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
	·		Exhibit 44 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
	J		Exhibit 45 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 46 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 47 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 48 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 49 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
111014	v arsima vi v aj arcoma	1,31,202	Exhibit 50 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
Wictu	v disima vi sayakama	1/31/2023	Exhibit 51 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
1,1010	v aisimavi Jayakumai	1/31/2023	Exhibit 52 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
Ivicia	v aisiiiavi Jayakuiilai	1/31/2023	Exhibit 53 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/21/2025	Vaishnavi Jayakumar
ivicia	v aisimavi Jayakumar	1/31/2023	
Mata	Voichneyi Isralaan	1/21/2025	Exhibit 54 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 55 to Deposition Transcript of
Meta	Voishnavi Iavalaumer	1/21/2025	
Meta	Vaishnavi Jayakumar	1/31/2023	Vaishnavi Jayakumar
Mata	Vaishmani Tarahaanaa	1/21/2025	Exhibit 57 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2023	Vaishnavi Jayakumar
N f = 4 =	77-1-1	1/21/2025	Exhibit 58 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
N. F. J.	77 ' 1 ' 7 1	1/21/2025	Exhibit 59 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
	77 1 1 7 1	1/21/2025	Exhibit 60 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
3.5.4	****	1/21/2025	Exhibit 61 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
	77 ' 1 ' 7 1	1/21/2025	Exhibit 62 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
		. /2.1 /2.2.7	Exhibit 63 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 64 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 65 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 66 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 67 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 68 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 69 to Deposition Transcript of
Meta	Vaishnavi Jayakumar	1/31/2025	Vaishnavi Jayakumar
			Exhibit 70 to Deposition Transcript of
Meta	Vaishnavi Jayakumar		Vaishnavi Jayakumar
Meta		1/28/2025	Deposition Transcript of
			Exhibit 1 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 2 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 3 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 4 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 5 to Deposition Transcript of
Meta		1/28/2025	

Defendant	Witness	Date	Description
Describe	With Cas	Date	Exhibit 6 to Deposition Transcript of
Meta		1/28/2025	openium rumourpe er
			Exhibit 7 to Deposition Transcript of
Meta		1/28/2025	•
			Exhibit 8 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 9 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 10 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 11 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 12 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 13 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 14 to Deposition Transcript of
Meta		1/28/2025	
3.5.		1/20/2025	Exhibit 15 to Deposition Transcript of
Meta		1/28/2025	
Mata		1/29/2025	Exhibit 16 to Deposition Transcript of
Meta		1/28/2025	Exhibit 17 to Deposition Transacint of
Meta		1/28/2025	Exhibit 17 to Deposition Transcript of
ivieta		1/28/2023	Exhibit 18 to Deposition Transcript of
Meta		1/28/2025	Exhibit 18 to Deposition Transcript of
- Ivicia		1/20/2023	Exhibit 19 to Deposition Transcript of
Meta		1/28/2025	Example 15 to Deposition Transcript of
			Exhibit 20 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 21 to Deposition Transcript of
Meta		1/28/2025	•
			Exhibit 22 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 23 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 24 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 25 to Deposition Transcript of
Meta		1/28/2025	

Defendant	Witness	Date	Description
Detendant	Vicincis	Date	Exhibit 26 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 27 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 28 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 29 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 30 to Deposition Transcript of
Meta		1/28/2025	
			Exhibit 31 to Deposition Transcript of
Meta		1/28/2025	
3.5.		4 /00 /000 5	Exhibit 32 to Deposition Transcript of
Meta		1/28/2025	
26.4		1/20/2025	Exhibit 33 to Deposition Transcript of
Meta		1/28/2025	
Mata		1/20/2025	Exhibit 34 to Deposition Transcript of
Meta		1/28/2025	
Meta		1/28/2025	Exhibit 35 to Deposition Transcript of
Snap	Abby Tran		Deposition Transcripts of Abby Tran
энар	Tiooy Truii	2/20/2023	Exhibit 1 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
1			Exhibit 2 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 3 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 4 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 5 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 6 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 7 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
~			Exhibit 8 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
		0/06/2055	Exhibit 9 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
C	A11 T	0/06/0005	Exhibit 10 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran

Defendan	t Witness	Date	Description
Defendan	t Withesis		Exhibit 11 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
ышр	1100y 11un	2/20/2023	Exhibit 12 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
ыцр	1100y 11un	2/20/2023	Exhibit 13 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
Бпар	Tiody Tium	2/20/2028	Exhibit 14 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
Бпар	Tiooy Tiun	2,20,2028	Exhibit 15 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
БПар	Treey Truit	2/20/2028	Exhibit 16 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
Бпар	Tiooy Tiun	2,20,2028	Exhibit 17 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
z nap	11009 11411	2,26,2626	Exhibit 18 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
T			Exhibit 19 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
1			Exhibit 20 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
-			Exhibit 21 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 22 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 23 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 24 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 25 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 26 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 27 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 28 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
			Exhibit 29 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
_			Exhibit 30 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran

Defendar	nt Witness	Date	Description
			Exhibit 31 to Deposition Transcript of
Snap	Abby Tran	2/26/2025	Abby Tran
Snap	Alex Osborne	1/10/2025	Deposition Transcript of Alex Osborne
			Exhibit 1 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
			Exhibit 2 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
			Exhibit 3 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
			Exhibit 4 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
			Exhibit 5 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
			Exhibit 6 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
			Exhibit 7 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
			Exhibit 8 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
			Exhibit 9 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
~		1 /10 /2027	Exhibit 10 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
G		1/10/2025	Exhibit 11 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
C	41 01	1/10/2025	Exhibit 12 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
C	A1 0.1	1/10/2025	Exhibit 13 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
Cmom	A law Oah awaa	1/10/2025	Exhibit 14 to Deposition Transcript of Alex Osborne
Snap	Alex Osborne	1/10/2023	
Cnon	Alax Ochorna	1/10/2025	Exhibit 15 to Deposition Transcript of Alex Osborne
Snap	Alex Osborne	1/10/2023	
Snon	Alex Osborne	1/10/2025	Exhibit 16 to Deposition Transcript of Alex Osborne
Snap	Alex Osborne	1/10/2023	Exhibit 17 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
Sirap	AICA OSUUITIE	1/10/2023	Exhibit 18 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
Shap	THEA OSUUTILE	1/10/2023	Exhibit 19 to Deposition Transcript of
Snap	Alex Osborne	1/10/2025	Alex Osborne
Duap	MICA OSUULIIC	1/10/2023	THEA OBUUTHE

Defendan	t Witness	Date	Description
Snap	Althea Tupper		Deposition Transcript of Althea Tupper
	11		Exhibit 1 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
1			Exhibit 2 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 3 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
1			Exhibit 4 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
-			Exhibit 5 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
1			Exhibit 6 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
-			Exhibit 7 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
_			Exhibit 8 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
_			Exhibit 9 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 10 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 11 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 12 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 13 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 14 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 15 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 16 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 17 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 18 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 19 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 20 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper

Defendar	nt Witness	Date	Description
			Exhibit 21 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 22 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 23 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 24 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 25 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 26 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 27 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 28 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 29 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 30 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 31 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 32 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 33 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 34 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
_			Exhibit 35 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 36 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
			Exhibit 37 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
_			Exhibit 38 to Deposition Transcript of
Snap	Althea Tupper	11/14/2024	Althea Tupper
_			Exhibit 39 to Deposition Transcript of
Snap	Althea Tupper		Althea Tupper
Snap	Claudia Chan	2/7/2025	Deposition Transcripts of Claudia Chan
			Exhibit 1 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan

Defendan	t Witness	Date	Description
			Exhibit 2 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
1			Exhibit 3 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
1			Exhibit 4 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 5 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
•			Exhibit 6 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
_			Exhibit 7 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 8 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 9 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 10 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 11 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 12 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 13 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 14 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
		2/7/2025	Exhibit 15 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
C	G1 1' G1	2/7/2025	Exhibit 16 to Deposition Transcript of
Snap	Claudia Chan	2/1/2025	Claudia Chan
Cm a :-	Class 4! - Cla	2/7/2025	Exhibit 17 to Deposition Transcript of
Snap	Claudia Chan	2/1/2025	Claudia Chan
Cnon	Claudia Char	2/7/2025	Exhibit 18 to Deposition Transcript of Claudia Chan
Snap	Claudia Chan	2/1/2025	
Snon	Claudia Chan	2/7/2025	Exhibit 19 to Deposition Transcript of Claudia Chan
Snap	Ciauuia Ciiaii	2/1/2023	Exhibit 20 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
Snap	Ciaudia Ciiali	2/1/2023	Exhibit 21 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
ыар	Ciaudia Ciiali	2/1/2023	Ciaudia Chan

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 22 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
эпар	Ciaddia Ciiali	2/1/2023	Exhibit 23 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
эпар	Claudia Chan	2/1/2023	Exhibit 24 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
эпар	Ciadaia Ciian	2/1/2023	Exhibit 25 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
Эпар	Ciadara Ciran	2/1/2023	Exhibit 26 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
эпар	Ciadaia Ciian	2/1/2023	Exhibit 27 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
Эпар	Ciddad Cidai	2/1/2023	Exhibit 28 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
БПар	Ciadaia Ciidii	2/1/2023	Exhibit 29 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
БПар		2,7,2020	Exhibit 30 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
<u>-</u>			Exhibit 31 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
1			Exhibit 32 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
-			Exhibit 33 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 34 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 35 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 36 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 37 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 38 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 39 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Exhibit 40 to Deposition Transcript of
Snap	Claudia Chan	2/7/2025	Claudia Chan
			Deposition Transcript of David Boyle
Snap	David Boyle	2/26/2025	[30(b)(6)

Defendant	t Witness	Date	Description
			Exhibit 1 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
211 . .p	2 u i a 2 o jie		Exhibit 1-A to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
~ T			Exhibit 1-B to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
··I			Exhibit 1-C to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
1			Exhibit 1-D to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
1			Exhibit 1-E to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
1	j		Exhibit 2 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
-			Exhibit 3 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
			Exhibit 4 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
			Exhibit 5 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
			Exhibit 6 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
			Exhibit 7 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
			Exhibit 8 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
			Exhibit 9 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
_			Exhibit 10 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
_			Exhibit 11 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
a	D 11D 1	2/25/2027	Exhibit 12 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
G	D '1D 1	0/0//0005	Exhibit 13 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
Cnor	David David	2/26/2025	Exhibit 14 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
Cnon	David Davis	2/26/2025	Exhibit 15 to Deposition Transcript of
Snap	David Boyle	2/20/2025	David Boyle 30(b)(6)

Defendant	Witness	Date	Description
Defendant	VICINCSS		Exhibit 16 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
БПар	Buviu Boyie	2/20/2023	Exhibit 17 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
~ <u>F</u>			Exhibit 18 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
	,		Exhibit 19 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
			Exhibit 20 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
			Exhibit 21 to Deposition Transcript of
Snap	David Boyle	2/26/2025	David Boyle 30(b)(6)
			Exhibit 22 to Deposition Transcript of
Snap	David Boyle		David Boyle 30(b)(6)
Snap	David Boyle	2/27/2025	Deposition Transcript of David Boyle
			Exhibit 1 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle
			Exhibit 2 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle
a		2/25/2025	Exhibit 3 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle
C	D '1D 1	2/27/2025	Exhibit 4 to Deposition Transcript of
Snap	David Boyle	2/21/2025	David Boyle
Caran	David Davis	2/27/2025	Exhibit 5 to Deposition Transcript of David Boyle
Snap	David Boyle	2/21/2023	2
Snap	David Boyle	2/27/2025	Exhibit 6 to Deposition Transcript of David Boyle
Shap	David Boyle	2/2//2023	Exhibit 7 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle
ышр	David Boyle	2/27/2023	Exhibit 8 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle
<u>-</u>			Exhibit 9 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle
1	,		Exhibit 10 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle
			Exhibit 10-1 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle
			Exhibit 11 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle
			Exhibit 12 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle

Defendan	nt Witness	Date	Description
Defendan	TO WITHESS	Date	Exhibit 13 to Deposition Transcript of
Snap	David Boyle	2/27/2025	David Boyle
Shap	David Boyle	2/21/2023	Exhibit 14 to Deposition Transcript of
Cnon	David Boyle	2/27/2025	David Boyle
Snap	David Boyle	2/21/2023	
Cnon	David Davia	2/27/2025	Exhibit 15 to Deposition Transcript of David Boyle
Snap	David Boyle	2/21/2023	
Cnon	David Davia	2/27/2025	Exhibit 16 to Deposition Transcript of David Boyle
Snap	David Boyle		·
Snap	David Boyle	4/2/2025	Deposition Transcript of David Boyle
C	D '1D 1	4/0/0005	Exhibit 17 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
	D 11D 1	4/2/2025	Exhibit 18 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
~		4 /2 /2 0 2 2	Exhibit 19 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 20 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 21 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 22 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 23 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 24 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 25 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 26 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 27 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 28 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 29 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 30 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 31 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 32 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
~	za.ia zojio	1, 2, 2023	

Defendant	Witness	Date	Description
Defendant	V TOTOSS		Exhibit 33 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
ышр	David Boyle	1/2/2023	Exhibit 34 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
ышр	David Boyle	1/2/2023	Exhibit 35 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
опир	Buvia Boyle	1/2/2023	Exhibit 36 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
Бпар	Buvia Boyie	1/2/2023	Exhibit 37 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
Эпар	David Boyle	1/2/2023	Exhibit 38 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
Бпар	Buvia Boyie	1/2/2023	Exhibit 39 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
Бпар	Buria Bojie	1,2,2020	Exhibit 40 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
~ <u>r</u>		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Exhibit 41 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
T			Exhibit 42 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
1	,		Exhibit 43 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
-			Exhibit 44 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 45 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 46 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 47 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 48 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 49 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 50 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit 51 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
			Exhibit PM-6 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle

Defendant	Witness	Date	Description
			Exhibit PM-7 to Deposition Transcript of
Snap	David Boyle	4/2/2025	David Boyle
Snap	David Lue		Deposition Transcript of David Lue
•			Exhibit 1 to Deposition Transcript of
Snap	David Lue	3/26/2025	David Lue
			Exhibit 2 to Deposition Transcript of
Snap	David Lue	3/26/2025	David Lue
			Exhibit 3 to Deposition Transcript of
Snap	David Lue	3/26/2025	David Lue
			Exhibit 4 to Deposition Transcript of
Snap	David Lue	3/26/2025	David Lue
			Exhibit 5 to Deposition Transcript of
Snap	David Lue	3/26/2025	David Lue
			Exhibit 6 to Deposition Transcript of
Snap	David Lue	3/26/2025	David Lue
			Exhibit 7 to Deposition Transcript of
Snap	David Lue	3/26/2025	David Lue
_			Exhibit 8 to Deposition Transcript of
Snap	David Lue	3/26/2025	David Lue
a	D	2/25/2025	Exhibit 9 to Deposition Transcript of
Snap	David Lue	3/26/2025	David Lue
C	D '11	2/26/2025	Exhibit 10 to Deposition Transcript of
Snap	David Lue	3/26/2025	David Lue
Cnon	David Lua	2/26/2025	Exhibit 11 to Deposition Transcript of David Lue
Snap	David Lue	3/20/2023	
Cnon	David Lue	2/26/2025	Exhibit 12 to Deposition Transcript of David Lue
Snap	David Lue	3/20/2023	Deposition Transcripts of Deborah
Snap	Deborah Oshuntola	2/4/2025	Oshuntola
ыар	Deborali Oshuntola	2/4/2023	Exhibit 1 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
БПар	Decorair Ophanicola	2/ 1/2020	Exhibit 2 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
T	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	, , , = 520	Exhibit 3 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
•			Exhibit 4 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
-			Exhibit 5 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
			Exhibit 6 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola

Defendant	Witness	Doto	Description
Defendant	Witness	Date	1
Caron	Daharah Oshumtala	2/4/2025	Exhibit 7 to Deposition Transcript of Deborah Oshuntola
Snap	Deborah Oshuntola	2/4/2025	
C		2/4/2025	Exhibit 8 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
		2/4/2027	Exhibit 9 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
-			Exhibit 10 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
			Exhibit 11 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
			Exhibit 12 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
			Exhibit 13 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
			Exhibit 14 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
			Exhibit 15 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
			Exhibit 16 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
			Exhibit 17 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
			Exhibit 18 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
			Exhibit 19 to Deposition Transcript of
Snap	Deborah Oshuntola	2/4/2025	Deborah Oshuntola
Snap	Jack Brody	2/5/2025	Deposition Transcript of Jack Brody
	·		Exhibit 1 to Deposition Transcript of Jack
Snap	Jack Brody	2/5/2025	
1	·		Exhibit 2 to Deposition Transcript of Jack
Snap	Jack Brody	2/5/2025	*
1	, , , , , , , , , , , , , , , , , , ,		Exhibit 3 to Deposition Transcript of Jack
Snap	Jack Brody	2/5/2025	
T			Exhibit 4 to Deposition Transcript of Jack
Snap	Jack Brody	2/5/2025	
T T		_, c, _ 020	Exhibit 5 to Deposition Transcript of Jack
Snap	Jack Brody	2/5/2025	1
~ imp	Julia Diouj	2,3,2023	Exhibit 6 to Deposition Transcript of Jack
Snap	Jack Brody	2/5/2025	-
Shap	Juck Drody	2/3/2023	Exhibit 7 to Deposition Transcript of Jack
Snan	Jack Brody	2/5/2025	
Snap	Jack Drouy	4/3/4043	Drouy

Defendant	Witness	Date	Description
Deremaunt	VVICIOSS	Dute	Exhibit 8 to Deposition Transcript of Jack
Snap	Jack Brody	2/5/2025	_
	·		Exhibit 9 to Deposition Transcript of Jack
Snap	Jack Brody	2/5/2025	
			Exhibit 10 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 11 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 12 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 13 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 14 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 15 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
G		2/5/2025	Exhibit 16 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
C	I I D I	2/5/2025	Exhibit 17 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
Cnon	Joals Duodes	2/5/2025	Exhibit 18 to Deposition Transcript of
Snap	Jack Brody	2/3/2023	Jack Brody Exhibit 10 to Denosition Transporint of
Snap	Jack Brody	2/5/2025	Exhibit 19 to Deposition Transcript of Jack Brody
Shap	Jack Blody	2/3/2023	Exhibit 20 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
ышр	Juck Brody	2/3/2023	Exhibit 21 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
T			Exhibit 22 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
1	·		Exhibit 23 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
•			Exhibit 24 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 25 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 26 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 27 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody

Defendant	Witness	Date	Description
<u> </u>	TY TOTTOSS		Exhibit 28 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
1			Exhibit 29 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
•	·		Exhibit 30 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 31 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 32 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Exhibit 33 to Deposition Transcript of
Snap	Jack Brody	2/5/2025	Jack Brody
			Deposition Transcript of Jacqueline
Snap	Jacqueline Beauchere	3/13/2025	Beauchere
			Exhibit 1 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 2 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
		0/10/2027	Exhibit 3 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
C	I 1	2/12/2025	Exhibit 4 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
Cnon	Jacqueline Pecuchera	2/12/2025	Exhibit 5 to Deposition Transcript of Jacqueline Beauchere
Snap	Jacqueline Beauchere	3/13/2023	Exhibit 6 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
ыар	Jacqueinic Beauchere	3/13/2023	Exhibit 7 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
БПар	sucqueime Beauchere	3/13/2023	Exhibit 8 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
·- ··I	1		Exhibit 9 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
•			Exhibit 10 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 11 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 12 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 13 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere

Defendant	Witness	Date	Description
Detendant	VICICSS		Exhibit 14 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
~ IIIIp		0,10,2020	Exhibit 15 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
1	1		Exhibit 16 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 17 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 18 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 19 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 20 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 21 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 22 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
			Exhibit 23 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
~		242422	Exhibit 24 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
a	I 1' D 1	2/12/2025	Exhibit 25 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
C	I I' D 1	2/12/2025	Exhibit 26 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
Cnon	Jacquelina Paguahara	2/12/2025	Exhibit 27 to Deposition Transcript of Jacqueline Beauchere
Snap	Jacqueline Beauchere	3/13/2023	Exhibit 28 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
ыар	Jacqueinic Beauchere	3/13/2023	Exhibit 29 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
БПар	sacqueime Beauchere	3/13/2023	Exhibit 30 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	Jacqueline Beauchere
Спар	Tacqueinic Deduction	3/13/2023	Exhibit 31 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/13/2025	
F	The Table 2 and 10 and	2. 20, 2020	-
Snap	Jacqueline Beauchere	3/14/2025	
r			
Snap	Jacqueline Beauchere	3/14/2025	
Snap Snap Snap	Jacqueline Beauchere Jacqueline Beauchere Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere Deposition Transcript of Jacqueline Beauchere Exhibit 32 to Deposition Transcript of Jacqueline Beauchere

Defendant	Witness	Date	Description
Defendant	Witness	Date	
G	1, 1, 5, 1	0/14/0005	Exhibit 33 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 34 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 35 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 36 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 37 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 38 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 39 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 40 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 41 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 42 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 43 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 44 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 45 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 46 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 47 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 48 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 49 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 50 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 51 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
			Exhibit 52 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2025	Jacqueline Beauchere
-			

Defendant	Witness	Date	Description
Detellualit	Withess	Date	
Cnon	Jacqualina Daguahara	2/14/2025	Exhibit 53 to Deposition Transcript of Jacqueline Beauchere
Snap	Jacqueline Beauchere	3/14/2023	
Cnon	La aqualina Daquahana	2/14/2025	Exhibit 54 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2023	Jacqueline Beauchere
Cnon	La aqualina Daguahana	2/14/2025	Exhibit 55 to Deposition Transcript of Jacqueline Beauchere
Snap	Jacqueline Beauchere	3/14/2023	1
Cnon	La aqualina Daquahana	2/14/2025	Exhibit 56 to Deposition Transcript of Jacqueline Beauchere
Snap	Jacqueline Beauchere	3/14/2023	1
Cnon	La aqualina Daguahana	2/14/2025	Exhibit 57 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2023	Jacqueline Beauchere
Cmom	Leagueline Describers	2/14/2025	Exhibit 58 to Deposition Transcript of
Snap	Jacqueline Beauchere	3/14/2023	Jacqueline Beauchere
Coon	Lah Daniakansaki	2/20/2025	Denosition Transacint of Joh Deniskavyski
Snap	Jeb Boniakowski	3/20/2025	Deposition Transcript of Jeb Boniakowski
Cmom	Lah Daniakannaki	2/20/2025	Exhibit 1 to Deposition Transcript of Jeb
Snap	Jeb Boniakowski		Boniakowski
C	I.b. Danialarandai		Exhibit 2 to Deposition Transcript of Jeb
Snap	Jeb Boniakowski	3/20/2025	Boniakowski
G	T.I.D. '.I. 1.'	2/20/2025	Exhibit 3 to Deposition Transcript of Jeb
Snap	Jeb Boniakowski	3/20/2025	Boniakowski
C	T.I.D. '.I. 1.'	2/20/2025	Exhibit 4 to Deposition Transcript of Jeb
Snap	Jeb Boniakowski	3/20/2025	Boniakowski
C	Lab Daniala analai	2/20/2025	Exhibit 5 to Deposition Transcript of Jeb
Snap	Jeb Boniakowski	3/20/2025	Boniakowski
C	T.I.D. '.I. 1.'	2/20/2025	Exhibit 6 to Deposition Transcript of Jeb
Snap	Jeb Boniakowski	3/20/2025	Boniakowski
C	T 1 D ' 1 1'	2/20/2025	Exhibit 7 to Deposition Transcript of Jeb
Snap	Jeb Boniakowski	3/20/2025	Boniakowski
C	T.I.D. '.I. 1.'	2/20/2025	Exhibit 8 to Deposition Transcript of Jeb
Snap	Jeb Boniakowski	3/20/2025	Boniakowski
G	TID 'I I'	2/20/2025	Exhibit 9 to Deposition Transcript of Jeb
Snap	Jeb Boniakowski		Boniakowski
C	Lib Devil 1		Exhibit 10 to Deposition Transcript of
Snap	Jeb Boniakowski	3/20/2025	Jeb Boniakowski
C	Li Danii I	2/20/2025	Exhibit 11 to Deposition Transcript of
Snap	Jeb Boniakowski		Jeb Boniakowski
C	I.I.D. '.11.		Exhibit 12 to Deposition Transcript of
Snap	Jeb Boniakowski	3/20/2025	Jeb Boniakowski
C	I I D	0/00/0005	Exhibit 13 to Deposition Transcript of
Snap	Jeb Boniakowski	3/20/2025	Jeb Boniakowski

Defendan	nt Witness	Date	Description
			Exhibit 15 to Deposition Transcript of
Snap	Jeb Boniakowski	3/20/2025	Jeb Boniakowski
			Exhibit 16 to Deposition Transcript of
Snap	Jeb Boniakowski	3/20/2025	Jeb Boniakowski
			Exhibit 17 to Deposition Transcript of
Snap	Jeb Boniakowski	3/20/2025	Jeb Boniakowski
			Exhibit 18 to Deposition Transcript of
Snap	Jeb Boniakowski	3/20/2025	Jeb Boniakowski
Snap	Jennifer Stout	3/26/2025	Deposition Transcripts of Jennifer Stout
			Exhibit 1 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
			Exhibit 2 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
			Exhibit 3 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
			Exhibit 4 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
			Exhibit 5 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
			Exhibit 6 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
			Exhibit 7 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
			Exhibit 8 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
			Exhibit 9 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
_			Exhibit 10 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
_			Exhibit 11 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
~		0 /0 5 /0 0 0 7	Exhibit 12 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
	T 10 0	0/06/2005	Exhibit 13 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
a	I C C	2/26/2027	Exhibit 14 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
a	T 10 0	0/06/2005	Exhibit 15 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
a			Exhibit 16 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout

Defendar	nt Witness	Date	Description
Defendan	it Withess		Exhibit 17 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
Shap	Jennier Stout	3/20/2023	Exhibit 18 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
ыар	Jennier Stout	3/20/2023	Exhibit 19 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
эпар	Jennier Stout	3/20/2023	Exhibit 20 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
Бпар		3,20,2020	Exhibit 21 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
Бпар	Jennier stout	3/20/2020	Exhibit 22 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
~r		0,20,2020	Exhibit 23 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
T			Exhibit 24 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
			Exhibit 25 to Deposition Transcript of
Snap	Jennifer Stout	3/26/2025	Jennifer Stout
Snap	Jennifer Stout	3/27/2025	Deposition Transcripts of Jennifer Stout
-			Exhibit 26 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 27 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 28 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 29 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 30 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 31 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 32 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 33 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 34 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
a a		0.05.50	Exhibit 35 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
	T	0/05/0005	Exhibit 36 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 37 to Deposition Transcript of
Snon	Jennifer Stout	3/27/2025	Jennifer Stout
Snap	Jennier Stout	3/21/2023	
Snap	Jennifer Stout	3/27/2025	Exhibit 38 to Deposition Transcript of Jennifer Stout
Shap	Jennier Stout	3/21/2023	Exhibit 39 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
ыар	Jennier Stout	3/2//2023	Exhibit 40 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
ышр	Jennier Stout	3/21/2023	Exhibit 41 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
БПар	Jennier Stout	3/21/2023	Exhibit 42 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
z mp		0,21,2020	Exhibit 43 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
- In the second			Exhibit 44 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
· · · · · · ·			Exhibit 45 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
1			Exhibit 46 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 47 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 48 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 49 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 50 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 51 to Deposition Transcript of
Snap	Jennifer Stout	3/27/2025	Jennifer Stout
			Exhibit 52 to Deposition Transcript of
Snap	Jennifer Stout		Jennifer Stout
Snap	Josh Siegel	3/20/2025	Deposition Transcript of Josh Siegel
			Exhibit 1 to Deposition Transcript of Josh
Snap	Josh Siegel	3/20/2025	
			Exhibit 2 to Deposition Transcript of Josh
Snap	Josh Siegel	3/20/2025	
			Exhibit 3 to Deposition Transcript of Josh
Snap	Josh Siegel	3/20/2025	Ş
			Exhibit 4 to Deposition Transcript of Josh
Snap	Josh Siegel	3/20/2025	Siegel

Defendant	Witness	Date	Description
			Exhibit 5 to Deposition Transcript of Josh
Snap	Josh Siegel	3/20/2025	_
			Exhibit 6 to Deposition Transcript of Josh
Snap	Josh Siegel	3/20/2025	Siegel
			Exhibit 7 to Deposition Transcript of Josh
Snap	Josh Siegel	3/20/2025	Siegel
			Exhibit 8 to Deposition Transcript of Josh
Snap	Josh Siegel	3/20/2025	Siegel
			Exhibit 9 to Deposition Transcript of Josh
Snap	Josh Siegel	3/20/2025	
			Exhibit 10 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 11 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 12 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 13 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 14 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 15 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
~		2/20/2027	Exhibit 16 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
a		2/20/2025	Exhibit 17 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
C	1 1 0' 1	2/20/2025	Exhibit 18 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
Cnon	Josh Cional	2/20/2025	Exhibit 19 to Deposition Transcript of Josh Siegel
Snap	Josh Siegel	5/20/2023	Ŭ
Cnon	Josh Siggal	2/20/2025	Exhibit 20 to Deposition Transcript of Josh Siegel
Snap	Josh Siegel	3/20/2023	
Snan	Josh Siegel	3/20/2025	Exhibit 21 to Deposition Transcript of Josh Siegel
Snap	Josh Sieger	3/20/2023	Exhibit 22 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
Shap	Josh Diegel	3/20/2023	Exhibit 23 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
энир	00011 010601	5, 20, 2023	Exhibit 24 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
Simp	Josh Diegel	312012023	0 0011 010501

Defendant	Witness	Date	Description
Defendant	VVICICSS	Dute	Exhibit 25 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
Эпар	Josh Bieger	3/20/2023	Exhibit 26 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
ыар	Josh Sieger	3/20/2023	
Cnon	Josh Siegel	2/20/2025	Exhibit 27 to Deposition Transcript of Josh Siegel
Snap	Josh Sieger	3/20/2023	9
Cnon	Lock Sincel	2/20/2025	Exhibit 28 to Deposition Transcript of
Snap	Josh Siegel	3/20/2023	Josh Siegel
C	I1- C'1	2/20/2025	Exhibit 29 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
a	T 1 C' 1	2/20/2025	Exhibit 30 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
	1 1 0' 1	2/20/2025	Exhibit 31 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
		2/20/2027	Exhibit 32 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
_			Exhibit 33 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 34 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 35 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 36 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 37 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 38 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 39 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 40 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 41 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 42 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 43 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 44 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel

Defendan	t Witness	Date	Description
			Exhibit 45 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
•			Exhibit 46 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
-			Exhibit 47 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
			Exhibit 48 to Deposition Transcript of
Snap	Josh Siegel	3/20/2025	Josh Siegel
Snap	Juliet Shen	3/4/2025	Deposition Transcript of Juliet Shen
			Exhibit 1 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 2 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 3 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 4 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 5 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
_			Exhibit 6 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
<u> </u>		2/4/2025	Exhibit 7 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
G	1 1: 4 01	2/4/2025	Exhibit 8 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
Cnon	Juliat Chan	2/4/2025	Exhibit 9 to Deposition Transcript of Juliet Shen
Snap	Juliet Shen	3/4/2023	
Snap	Juliet Shen	3/4/2025	Exhibit 10 to Deposition Transcript of Juliet Shen
эпар	Junet Shen	3/4/2023	Exhibit 11 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
ышр	Junet Shen	3/ 1/2023	Exhibit 12 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
- map		3/ 1/2023	Exhibit 13 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
T			Exhibit 14 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
1			Exhibit 15 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
•			Exhibit 16 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen

Defendant	Witness	Date	Description
			Exhibit 17 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 18 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 19 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 20 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 21 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 22 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 23 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 24 to Deposition Transcript of
Snap	Juliet Shen	3/4/2025	Juliet Shen
			Exhibit 25 to Deposition Transcript of
Snap	Juliet Shen		Juliet Shen
Snap	Kale Zicafoose	12/4/2024	Deposition Transcript of Kale Zicafoose
			Exhibit 1 to Deposition Transcript of
Snap	Kale Zicafoose	12/4/2024	Kale Zicafoose
	T. 1. 57. C	12/4/2024	Exhibit 2 to Deposition Transcript of
Snap	Kale Zicafoose	12/4/2024	Kale Zicafoose
C	TZ 1 77' C	10/4/2024	Exhibit 3 to Deposition Transcript of
Snap	Kale Zicafoose	12/4/2024	Kale Zicafoose
C	W-1-71f	12/4/2024	Exhibit 4 to Deposition Transcript of Kale Zicafoose
Snap	Kale Zicafoose	12/4/2024	
Caran	Vala 7 andana	12/4/2024	Exhibit 5 to Deposition Transcript of Kale Zicafoose
Snap	Kale Zicafoose	12/4/2024	
Snon	Kale Zicafoose	12/4/2024	Exhibit 6 to Deposition Transcript of Kale Zicafoose
Snap	Kale Zicaroose	12/4/2024	Exhibit 7 to Deposition Transcript of
Snap	Kale Zicafoose	12/4/2024	Kale Zicafoose
ыар	Raic Zicaroosc	12/4/2024	Exhibit 8 to Deposition Transcript of
Snap	Kale Zicafoose	12/4/2024	Kale Zicafoose
Shap	Tano Zhouroose	12/ 7/2024	Exhibit 9 to Deposition Transcript of
Snap	Kale Zicafoose	12/4/2024	Kale Zicafoose
Ziiap	Tuio Zioni oose	12, 1, 2027	Exhibit 10 to Deposition Transcript of
Snap	Kale Zicafoose	12/4/2024	Kale Zicafoose
<u>-</u> -		12, 1/2021	Exhibit 11 to Deposition Transcript of
Snap	Kale Zicafoose	12/4/2024	Kale Zicafoose

Defendant	Witness	Date	Description
Defendant	Witness	Date	•
Coor	Vala 7i aafa aaa	12/4/2024	Exhibit 12 to Deposition Transcript of Kale Zicafoose
Snap	Kale Zicafoose	12/4/2024	
C	W-1-7:f	12/4/2024	Exhibit 13 to Deposition Transcript of Kale Zicafoose
Snap	Kale Zicafoose	12/4/2024	
C	W-1-7:f	12/4/2024	Exhibit 14 to Deposition Transcript of Kale Zicafoose
Snap	Kale Zicafoose	12/4/2024	
C	W-1-7:f	12/4/2024	Exhibit 15 to Deposition Transcript of Kale Zicafoose
Snap	Kale Zicafoose	12/4/2024	
Casa	Vala 7i aafa aaa	12/4/2024	Exhibit 16 to Deposition Transcript of Kale Zicafoose
Snap	Kale Zicafoose	12/4/2024	Kale Zicaloose
Cnon	I assert Cahenaadly	1/24/2025	Danasitian Transprint of Lauryl Schroodly
Snap	Lauryl Schraedly	1/24/2023	Deposition Transcript of Lauryl Schraedly Exhibit 1 to Deposition Transcript of
Snon	Loury Cohroadly	1/24/2025	Exhibit 1 to Deposition Transcript of Lauryl Schraedly
Snap	Lauryl Schraedly	1/24/2023	
Snap	Lauryl Schraedly	1/24/2025	Exhibit 2 to Deposition Transcript of Lauryl Schraedly
ыар	Lauryr Schraedry	1/24/2023	Exhibit 3 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
ыар	Lauryr Schraedry	1/24/2023	Exhibit 4 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
ыар	Lauryi Schraedry	1/24/2023	Exhibit 5 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
БПар	Laaryr Semacary	1/21/2023	Exhibit 6 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
z i up		1,2 1,2020	Exhibit 7 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
T.			Exhibit 8 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
1			Exhibit 9 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
_	, , ,		Exhibit 10 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Exhibit 11 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Exhibit 12 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Exhibit 13 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Exhibit 14 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly

Defendant	Witness	Date	Description
			Exhibit 15 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
1	·		Exhibit 16 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Exhibit 17 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Exhibit 18 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Exhibit 19 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Exhibit 20 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Exhibit 21 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Exhibit 22 to Deposition Transcript of
Snap	Lauryl Schraedly	1/24/2025	Lauryl Schraedly
			Deposition Transcript of Matthew
Snap	Matthew Jackson	11/19/2024	Jackson 30(b)(6)
			Exhibit 1 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 2 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 3 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 4 to Deposition Transcript of
Snap	Matthew Jackson		Matthew Jackson 30(b)(6)
			Exhibit 5 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
~		11/10/2021	Exhibit 6 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 7 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
		44/20/202	Exhibit 8 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
a	N	11/10/202	Exhibit 9 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
a		44/40/2021	Exhibit 10 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
		4440	Exhibit 11 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)

Defendant	Witness	Date	Description
Defendant	Withess		Exhibit 12 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
z i wp	Tradition of the state of the s	11/13/2021	Exhibit 13 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
1			Exhibit 14 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
1			Exhibit 15 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 16 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 17 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 18 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 19 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 20 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 21 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 22 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 23 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 24 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 25 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Exhibit 26 to Deposition Transcript of
Snap	Matthew Jackson	11/19/2024	Matthew Jackson 30(b)(6)
			Deposition Transcripts of Michael
Snap	Michael Weissinger	12/18/2024	Weissinger
			Exhibit 1 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
			Exhibit 2 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
			Exhibit 3 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
			Exhibit 4 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger

Defendant	Witness	Date	Description
Defendant	Withess	Date	•
Snap	Michael Weissinger	12/18/2024	Exhibit 5 to Deposition Transcript of Michael Weissinger
эпар	Weissinger	12/10/2024	Exhibit 6 to Deposition Transcript of
Snon	Michael Weissinger	12/18/2024	Michael Weissinger
Snap	Weissinger	12/16/2024	Exhibit 7 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
эпар	Weissinger	12/10/2024	Exhibit 8 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
ыар	Whenaci Weissinger	12/10/2024	Exhibit 9 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
эпар	Witchael Weissniger	12/10/2024	Exhibit 10 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
ыцр	Whender Weissinger	12/10/2024	Exhibit 11 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
Бпар	Witchaet Weissinger	12/10/2021	Exhibit 12 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
~ <u>F</u>			Exhibit 13 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
1			Exhibit 14 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
			Exhibit 15 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
			Exhibit 16 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
			Exhibit 17 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
			Exhibit 18 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
			Exhibit 19 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
			Exhibit 20 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
			Exhibit 21 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
_			Exhibit 22 to Deposition Transcript of
Snap	Michael Weissinger	12/18/2024	Michael Weissinger
		0/40/202=	Deposition Transcript of Morgan
Snap	Morgan Hammerstrom	2/12/2025	Hammerstrom
a		0/10/2025	Exhibit 1 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom

D 6 1 /	****	D 4	Daniel d'an
Defendant	Witness	Date	Description
			Exhibit 2 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 3 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 4 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 5 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 6 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 7 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 8 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 9 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 10 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 11 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 12 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 13 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 14 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 15 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 16 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 17 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 18 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 19 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 20 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
-			Exhibit 21 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
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Defendan	nt Witness	Date	Description
	V Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y		Exhibit 22 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
1			Exhibit 23 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 24 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 25 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 26 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 27 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 28 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 29 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 30 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 31 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 32 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 33 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 34 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
			Exhibit 35 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
_			Exhibit 36 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
_			Exhibit 37 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
_			Exhibit 38 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
G	M	0/10/2025	Exhibit 39 to Deposition Transcript of
Snap	Morgan Hammerstrom	2/12/2025	Morgan Hammerstrom
a	M	0/10/2025	Exhibit 40 to Deposition Transcript of
Snap	Morgan Hammerstrom		Morgan Hammerstrom
Snap	Nona Yadegar	12/16/2024	Deposition Transcript of Nona Yadegar
G	NT	10/1/2021	Exhibit 1 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar

Defendant	Witness	Date	Description
			Exhibit 2 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
1			Exhibit 3 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
	Ü		Exhibit 4 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 5 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 6 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 7 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 8 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 9 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 10 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 11 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 12 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 13 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 14 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 15 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
~		10/10/00	Exhibit 16 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
G.	NT	10/1/2/2021	Exhibit 17 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
a	NT 37 1	10/1/2/2021	Exhibit 18 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
Casa	None Veder	12/16/2024	Exhibit 19 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
Cnon	None Vadagar	12/16/2024	Exhibit 20 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar Exhibit 21 to Denosition Transacting of
Snon	None Vedecer	12/16/2024	Exhibit 21 to Deposition Transcript of
Snap	Nona Yadegar	12/10/2024	Nona Yadegar

Defendant	Witness	Date	Description
Defendant	Withess		Exhibit 22 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
Бпар	Trona Tadegar	12/10/2021	Exhibit 23 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
Бпар	Trona Tadegar	12/10/2021	Exhibit 24 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
·- ··I			Exhibit 25 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
1			Exhibit 26 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
1			Exhibit 27 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
1			Exhibit 28 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
1			Exhibit 29 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
_			Exhibit 30 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 31 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 32 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 33 to Deposition Transcript of
Snap	Nona Yadegar	12/16/2024	Nona Yadegar
			Exhibit 34 to Deposition Transcript of
Snap	Nona Yadegar		Nona Yadegar
Snap	Peter Sellis	2/6/2025	Deposition Transcript of Peter Sellis
			Exhibit 1 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 2 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 3 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 4 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 5 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 6 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 7 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis

Defendan	t Witness	Date	Description
Detendan	VVICIO		Exhibit 8 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
T			Exhibit 9 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 10 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
_			Exhibit 11 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 12 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 13 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 14 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 15 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 16 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
			Exhibit 17 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
G	5	2/5/2025	Exhibit 18 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
C	D (0.11)	2/6/2025	Exhibit 19 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
C	D-4- :: C-11:-	2/6/2025	Exhibit 20 to Deposition Transcript of
Snap	Peter Sellis	2/0/2023	Peter Sellis Exhibit 21 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
эпар	Teter Seriis	2/0/2023	Exhibit 22 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
Бпар	Teter Bellis	21 01 2023	Exhibit 23 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
~F	2 0000 /2 00000		Exhibit 24 to Deposition Transcript of
Snap	Peter Sellis	2/6/2025	Peter Sellis
1			Deposition Transcript of Lisa Duron
Snap	Lisa Duron	5/1/2024	
1			Exhibit 1 to Deposition Transcript of Lisa
Snap	Lisa Duron	5/1/2024	Duron 30(b)(6)
_			Exhibit 2 to Deposition Transcript of Lisa
Snap	Lisa Duron	5/1/2024	Duron 30(b)(6)

Defendant	Witness	Date	Description
			Exhibit 3 to Deposition Transcript of Lisa
Snap	Lisa Duron	5/1/2024	Duron 30(b)(6)
			Exhibit 4 to Deposition Transcript of Lisa
Snap	Lisa Duron	5/1/2024	Duron 30(b)(6)
			Exhibit 5 to Deposition Transcript of Lisa
Snap	Lisa Duron	5/1/2024	Duron 30(b)(6)
			Rough Deposition Transcript of Cormac
TikTok	Cormac Keenan	3/25/2025	Keenan
TikTok	Drew Kirchhoff	3/16/2025	Deposition Transcript of Drew Kirchhoff
			Exhibit 1 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 2 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3A to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3B to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3C to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3D to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3E to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3F to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3G to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3H to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3I to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3J to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3K to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 3L to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 4 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff

Defendant	Witness	Date	Description
Detendant	Withess		Exhibit 5 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
TIKTOK	Diew Kileimon	3/10/2023	Exhibit 6A to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
TIKTOK	Diew Kilenhoff	3/10/2023	Exhibit 6B to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
TIKTOK	Diew Kileimon	3/10/2023	Exhibit 6C to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
TIKTOK	Diew ichiennon	3/10/2023	Exhibit 6D to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
TIKTOK	Diew interment	3/10/2023	Exhibit 6E to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
TIKTOK	Diew interment	3/10/2023	Exhibit 7 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
	210 11 1211 0111 011	6, 16, 2626	Exhibit 8 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 9 to Deposition Transcript of
TikTok	Drew Kirchhoff		Drew Kirchhoff
			Exhibit 10 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 11 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 12 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 13 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 14 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 15 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 16 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 17 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
		_,,	Exhibit 18 to Deposition Transcript of
TikTok	Drew Kirchhoff		Drew Kirchhoff
mu m	D T 11 22		Exhibit 19 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
m'1 m 1	D 17: 11 00	0/1/2/2027	Exhibit 20 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff

Defendant	Witness	Date	Description
Эстенаанс	VVICIOSS		Exhibit 21 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 22 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 23 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 24 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 25 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 26 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 27 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 28 to Deposition Transcript of
TikTok	Drew Kirchhoff		Drew Kirchhoff
			Exhibit 29 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
m'1 m 1	D 47: 11 cc	2/15/2025	Exhibit 30 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
T:1-T-1-	Duarry Winglah off	2/16/2025	Exhibit 31 to Deposition Transcript of Drew Kirchhoff
TikTok	Drew Kirchhoff	3/10/2023	
TikTok	Drew Kirchhoff	3/16/2025	Exhibit 32 to Deposition Transcript of Drew Kirchhoff
TIKTOK	Diew Kilcilloii	3/10/2023	Exhibit 33 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
TIKTOR	Diew Kitelmon	3/10/2023	Exhibit 34 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
		3.2.20	Exhibit 35 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 36 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 37 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 38 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 39 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 40 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff

Defendant	Witness	Date	Description
			Exhibit 41 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
			Exhibit 42 to Deposition Transcript of
TikTok	Drew Kirchhoff	3/16/2025	Drew Kirchhoff
TikTok	Eric Han	3/11/2025	Deposition Transcript of Eric Han
			Exhibit 1 to Deposition Transcript of Eric
TikTok	Eric Han	3/11/2025	Han
			Exhibit 2 to Deposition Transcript of Eric
TikTok	Eric Han	3/11/2025	Han
			Exhibit 3 to Deposition Transcript of Eric
TikTok	Eric Han	3/11/2025	Han
			Exhibit 4 to Deposition Transcript of Eric
TikTok	Eric Han	3/11/2025	Han
			Exhibit 5 to Deposition Transcript of Eric
TikTok	Eric Han	3/11/2025	Han
			Exhibit 6 to Deposition Transcript of Eric
TikTok	Eric Han	3/11/2025	
			Exhibit 7 to Deposition Transcript of Eric
TikTok	Eric Han	3/11/2025	
			Exhibit 8 to Deposition Transcript of Eric
TikTok	Eric Han	3/11/2025	
			Exhibit 9 to Deposition Transcript of Eric
TikTok	Eric Han	3/11/2025	
			Exhibit 10 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
			Exhibit 11 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
m:1 m 1		2/11/2025	Exhibit 12 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
m:1 m 1	Б : П	2/11/2025	Exhibit 13 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
TC'1 TC 1		2/11/2025	Exhibit 14 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
T:1-T - 1-	Enio Hon	2/11/2025	Exhibit 15 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
TilzTalz	Enio Uon	3/11/2025	Exhibit 16 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
TikTok	Eric Han	3/11/2025	Exhibit 17 to Deposition Transcript of
TIKTOK	EHC Hall	3/11/2025	
TikTok	Eric Han	3/11/2025	Exhibit 18 to Deposition Transcript of
TIKTOK	ETIC Hall	3/11/2023	ETIC Hall

Defendant	Witness	Date	Description
Defendant	Withess		Exhibit 19 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
TIKTOK	Effe Hall	3/11/2023	Exhibit 20 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	_
TIKTOK	Life Hall	3/11/2023	
TikTok	Eric Han	3/11/2025	Exhibit 21 to Deposition Transcript of
TIKTOK	Enc Han	3/11/2023	
T:1-T - 1-	Enia II.a.	2/11/2025	Exhibit 22 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
m:1 m 1	D : 11	2/11/2025	Exhibit 23 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
		0 /4 4 /0 0 0 7	Exhibit 24 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
			Exhibit 25 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
			Exhibit 26 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
			Exhibit 27 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 28 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 29 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 30 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 31 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 32 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 33 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 34 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 35 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
			Exhibit 36 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	1
			Exhibit 37 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	1
		2.12.2320	
TikTok	Eric Han	3/11/2025	1
TikTok	Eric Han	3/11/2025	Exhibit 38 to Deposition Transcript of Eric Han

Defendant	Witness	Date	Description
			Exhibit 39 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	1 1
			Exhibit 40 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	_
			Exhibit 41 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 42 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 43 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 44 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 45 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 46 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 47 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 48 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 49 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 50 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 51 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	Eric Han
			Exhibit 52 to Deposition Transcript of
TikTok	Eric Han	3/11/2025	
TikTok	Eric Han	3/12/2025	Deposition Transcript of Eric Han
			Exhibit 53 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	Eric Han
			Exhibit 54 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	Eric Han
			Exhibit 55 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	Eric Han
			Exhibit 56 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	
			Exhibit 57 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	Eric Han
			Exhibit 58 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	Eric Han

Defendant	Witness	Date	Description
Defendant	Witness	Date	Exhibit 59 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	<u> </u>
TIKTOK	Life Hall	3/12/2023	Exhibit 60 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	1
TIKTOK	Life Hall	3/12/2023	Exhibit 61 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	•
TIKTOK	Life Han	3/12/2023	Exhibit 62 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	
TIKTOK	Life Hair	3/12/2023	Exhibit 63 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	
IMION		0/12/2020	Exhibit 64 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	1
		0, 22, 232	Exhibit 65 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	•
			Exhibit 66 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	
			Exhibit 67 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	*
			Exhibit 68 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	Eric Han
			Exhibit 69 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	Eric Han
			Exhibit 70 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	Eric Han
			Exhibit 71 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	Eric Han
			Exhibit 72 to Deposition Transcript of
TikTok	Eric Han	3/12/2025	
TikTok	Jordan Furlong	4/11/2025	Deposition Transcript of Jordan Furlong
			Exhibit 1 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 2 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 3 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
-11 -			Exhibit 4 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
m:1 m :		4/44/2005	Exhibit 5 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
m:1 m :1	r 1 - P 1	4/14/2005	Exhibit 6 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong

Defendant	Witness	Date	Description
Dolondane	V V IOINGS		Exhibit 7 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
TIKTOK	vordan i dirong	1/11/2023	Exhibit 8 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
TIKTOK	Jordan Lanong	1/11/2023	Exhibit 9 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
TIKTOK	vordan i dirong	1/11/2023	Exhibit 10 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
TIKTOK	Jordan Lanong	1/11/2023	Exhibit 11 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
TIKTOK	Jordan Lationg	1/11/2023	Exhibit 12 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
TIKTOK	Jordan Lanong	1/11/2023	Exhibit 13 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
TIRTOR	vordan i dirong	1/11/2020	Exhibit 14 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
	ordan runong	., 11, 2020	Exhibit 15 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
		.,	Exhibit 16 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 17 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
	- C		Exhibit 18 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 19 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 20 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 21 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 22 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 23 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 23a to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 24 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 25 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong

Defendant	Witness	Date	Description
Deterraum	VVICIOSIS		Exhibit 26 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
	o or want I writing	1,7272020	Exhibit 27 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
-			Exhibit 28 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
	5		Exhibit 29 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 30 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
	Ţ.		Exhibit 31 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 32 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 33 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 34 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 35 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 36 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 37 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 38 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 39 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
m:1 m 1		4/11/2025	Exhibit 40 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
m:1 m 1	T 1 T 1	4/11/2025	Exhibit 41 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
T:1-T: 1	I I I.	4/11/2027	Exhibit 42 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
TilzTalz	Iordon Eurlana	4/11/2025	Exhibit 43 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong Exhibit 44 to Denosition Transarint of
TikTok	Jordan Eurlana	4/11/2025	Exhibit 44 to Deposition Transcript of Jordan Furlong
TIKTUK	Jordan Furlong	4/11/2023	Exhibit 45 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
TIKTOK	Jordan Furiong	4/11/2023	Jordan Furiong

Defendant	Witness	Date	Description
			Exhibit 46 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 47 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 48 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 49 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 50 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 51 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 52 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 53 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 54 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 55 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 56 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 57 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 58 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 59 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 60 to Deposition Transcript of
TikTok	Jordan Furlong	4/11/2025	Jordan Furlong
			Exhibit 61 to Deposition Transcript of
TikTok	Jordan Furlong		Jordan Furlong
TikTok	Jordan Furlong	4/12/2025	Deposition Transcript of Jordan Furlong
			Exhibit 62 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 63 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 64 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 65 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong

Defendant	Witness	Date	Description
			Exhibit 66 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 67 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 68 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 69 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 70 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 71 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 72a to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 72b to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 72c to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 73 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 74 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 75 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 76 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 77 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 77a to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 77b to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
m'1 m 1		4/10/2025	Exhibit 77c to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
m:1 m 1		4/10/2025	Exhibit 77d to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
T'1 T 1		4/10/0005	Exhibit 77e to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
T:1-T 1	Landan E. 1	4/10/2025	Exhibit 77f to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong

Defendant	Witness	Date	Description
			Exhibit 77g to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 77h to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 78 to Deposition Transcript of
TikTok	Jordan Furlong		Jordan Furlong
			Exhibit 79 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 80 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 81 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 82 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 83 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 84 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 85 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 86 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 87 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 88 to Deposition Transcript of
TikTok	Jordan Furlong		Jordan Furlong
			Exhibit 89 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 90 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 91 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 92 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 93 to Deposition Transcript of
TikTok	Jordan Furlong		Jordan Furlong
			Exhibit 94 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
mu m :			Exhibit 95 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong

Defendant	Witness	Date	Description
	, , , , , , , , , , , , , , , , , , ,		Exhibit 96 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 97 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
	3		Exhibit 98 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 99 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
			Exhibit 100 to Deposition Transcript of
TikTok	Jordan Furlong	4/12/2025	Jordan Furlong
TikTok	Emma Gribbon		Deposition Transcript of Emma Gribbon
			Exhibit 1 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 2 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 3 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 4 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 5 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 6 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 7 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 8 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 9 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 10 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 11 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 12 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 13 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 14 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 15 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon

Defendant	Witness	Data	Description
Derendant	witness	Date	•
TikTok	Emma Gribbon	2/24/2025	Exhibit 16 to Deposition Transcript of Emma Gribbon
TIKTOK	Ellilla Gribboli	2/24/2023	
Til Tale	Emma Gribbon	2/24/2025	Exhibit 17 to Deposition Transcript of Emma Gribbon
TikTok	Ellilla Gribboli	2/24/2023	
TikTok	Emma Gribbon	2/24/2025	Exhibit 18 to Deposition Transcript of Emma Gribbon
TIKTOK	Ellilla Gilbboli		
TikTok	Emma Gribbon		Exhibit 19 to Deposition Transcript of Emma Gribbon
TIKTOK	Ellilla Gilbboli	2/24/2023	Exhibit 20 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
TIKTOK	Ellilla Gilbboli	2/24/2023	Exhibit 21 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
TIKTOK	Elillia Griotoli	2/24/2023	Exhibit 22 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
TIKTOK	Emina Gribbon	2/24/2023	Exhibit 23 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
TINTON	Ziiiiiu Giiooon	2,2 1,2020	Exhibit 24 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 25 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 26 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 27 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 28 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 29 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
			Exhibit 30 to Deposition Transcript of
TikTok	Emma Gribbon	2/24/2025	Emma Gribbon
TikTok	Cormac Keenan	3/25/2025	Deposition Transcripts of Cormac Keenan
			Exhibit 1 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 2 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
m'i m i		2/25/205=	Exhibit 3 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
m:1 m -1	G V	2/25/2025	Exhibit 4 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan

Defendant	Witness	Date	Description
	V IOIICSS		Exhibit 5 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
		6,26,2626	Exhibit 6 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
		0,20,2020	Exhibit 7 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
		5,25,252	Exhibit 8 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
		0,20,202	Exhibit 9 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
		5,23,232	Exhibit 10 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 11 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 12 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 13 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 14 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 15 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 16 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 17 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 18 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 19 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 20 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 21 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 22 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 23 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Exhibit 24 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan

Defendant	Witness	Date	Description
Detendant	witness	Date	•
T:1-T-1-	Cormac Keenan	2/25/2025	Exhibit 25 to Deposition Transcript of Cormac Keenan
TikTok	Cormac Keenan	3/23/2023	
T:1-T-1-	Common Vocanon	2/25/2025	Exhibit 26 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
T:1-T - 1-	Camara Wasanan	2/25/2025	Exhibit 27 to Deposition Transcript of Cormac Keenan
TikTok	Cormac Keenan	3/23/2023	
Til-Tal-	Cormac Keenan	2/25/2025	Exhibit 28 to Deposition Transcript of Cormac Keenan
TikTok	Cormac Reenan	3/23/2023	
TikTok	Cormac Keenan	3/25/2025	Exhibit 29 to Deposition Transcript of Cormac Keenan
TIKTOK	Corniac Rechan	3/23/2023	Exhibit 30 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
TIKTOK	Cormac Rechan	3/23/2023	Exhibit 31 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
TIKTOK	Cormac Rechan	3/23/2023	Exhibit 32 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
TIKTOK	Comine Rechan	3/23/2023	Exhibit 33 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
111111 011		0,20,2020	Exhibit 34 to Deposition Transcript of
TikTok	Cormac Keenan	3/25/2025	Cormac Keenan
			Deposition Transcript of Victoria
TikTok	Victoria Mccullough	2/19/2025	McCullough
			Exhibit 1 to Deposition Transcript of
TikTok	Victoria Mccullough		Victoria McCullough
			Exhibit 2 to Deposition Transcript of
TikTok	Victoria Mccullough	2/19/2025	Victoria McCullough
			Exhibit 3 to Deposition Transcript of
TikTok	Victoria Mccullough	2/19/2025	Victoria McCullough
			Exhibit 4 to Deposition Transcript of
TikTok	Victoria Mccullough	2/19/2025	Victoria McCullough
			Exhibit 5 to Deposition Transcript of
TikTok	Victoria Mccullough	2/19/2025	Victoria McCullough
			Exhibit 6 to Deposition Transcript of
TikTok	Victoria Mccullough	2/19/2025	Victoria McCullough
			Exhibit 7 to Deposition Transcript of
TikTok	Victoria Mccullough	2/19/2025	Victoria McCullough
		0/05/202	Deposition Transcript of Julie De
TikTok	Julie De Balliencourt	3/27/2025	Balliencourt
mu m		0/0=/000	Exhibit 1 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt

D - f 1 4	VV*4	Dete	Degazintian
Defendant	Witness	Date	Description
		2/27/2027	Exhibit 2 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 3 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 4 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 5 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 6 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 7 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 8 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 9 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 10 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 11 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 12 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 13 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
11111 011		0/2//2020	Exhibit 14 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
TINTON	t dire Be Buillene out	3/2//2028	Exhibit 15 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
TINTOR	June De Bumencourt	3/21/2023	Exhibit 16 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
TIKTOK	June De Dannencourt	314114043	Exhibit 17 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
TIKTUK	June De Dannencourt	3/21/2023	
TikTok	Julie De Bailliencourt	3/27/2025	Exhibit 18 to Deposition Transcript of Julie De Bailliencourt
TIKTOK	June De Dannencouft	3/21/2023	
Til-Tal-	Julia Da Baillian assart	2/27/2025	Exhibit 19 to Deposition Transcript of Julie De Bailliencourt
TikTok	Julie De Bailliencourt	3/21/2025	
TC'1 TC 1		2/27/2025	Exhibit 20 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/21/2025	Julie De Bailliencourt
mu m i		0/07/005	Exhibit 21 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt

Defendant	Witness	Date	Description
			Exhibit 22 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 23 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 24 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 25 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 26 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 27 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 28 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 29 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 30 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 31 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 32 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 33 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 34 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
			Exhibit 35 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
		2/27/2027	Exhibit 36 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
m:1 m .1	1 1' D D ''''	2/25/2025	Exhibit 37 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
m:1 m 1		2/25/2025	Exhibit 38 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
T'1 T 1	I I' D D 'II'	2/27/2025	Exhibit 39 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/21/2025	Julie De Bailliencourt
T:1-T - 1	I-1'- D. D. '11'	2/27/2025	Exhibit 40 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/21/2025	Julie De Bailliencourt
T:1-T - 1	I-1'- D. D. '11'	2/27/2025	Exhibit 41 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/21/2025	Julie De Bailliencourt

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 42 to Deposition Transcript of
TikTok	Julie De Bailliencourt	3/27/2025	Julie De Bailliencourt
TikTok	Ryn Linthicum		Deposition Transcript of Ryn Linthicum
TIKTOK	Kyn Emuncum	4/17/2023	Exhibit 1 to Deposition Transcript of Ryn
TikTok	Ryn Linthicum	4/17/2025	Linthicum
TIKTOK	Kyn Emuncum	4/11/2023	
TikTok	Ryn Linthicum	4/17/2025	Exhibit 2 to Deposition Transcript of Ryn Linthicum
TIKTOK	Kyli Liliuliculii	4/11/2023	
TikTok	Ryn Linthicum	4/17/2025	Exhibit 3 to Deposition Transcript of Ryn Linthicum
TIKTOK	Kyli Liliuliculii	4/17/2023	
T:1-T-1-	Dryn I insthiction	4/17/2025	Exhibit 4 to Deposition Transcript of Ryn
TikTok	Ryn Linthicum	4/17/2025	Linthicum
m:1 m 1	D T' 41	4/17/2025	Exhibit 5 to Deposition Transcript of Ryn
TikTok	Ryn Linthicum	4/17/2025	Linthicum
			Exhibit 6 to Deposition Transcript of Ryn
TikTok	Ryn Linthicum	4/17/2025	Linthicum
			Exhibit 7 to Deposition Transcript of Ryn
TikTok	Ryn Linthicum	4/17/2025	Linthicum
			Exhibit 8 to Deposition Transcript of Ryn
TikTok	Ryn Linthicum	4/17/2025	Linthicum
			Exhibit 9 to Deposition Transcript of Ryn
TikTok	Ryn Linthicum	4/17/2025	Linthicum
			Exhibit 10 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 11 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 12 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 13 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 14 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 15 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 16 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
		1000	Exhibit 17 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
- 111 2 311		., 11, 2020	Exhibit 18 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
TINTON	Zijii Ziiidiicaiii	1/11/2023	Exhibit 19 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
TIVIOV	Livii Linuiicuiii	7/17/2023	Ityn Emuncum

Defendant	Witness	Date	Description
			Exhibit 20 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 21 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 22 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 23 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 24 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 25 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 26 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 27 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 28 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 29 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 30 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 31 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 32 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 33 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 34 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 35 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 36 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 37 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
			Exhibit 38 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
mu = 1	.		Exhibit 39 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum

Defendant	Witness	Date	Description
Detendant	VVICIOS		Exhibit 40 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
TIKTOK	Kyn Emuneum	4/11/2023	Exhibit 41 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
TIKTOK	Kyn Emuncum		Exhibit 42 to Deposition Transcript of
TikTok	Ryn Linthicum		Ryn Linthicum
TIKTOK	Kyn Emuncum	4/11/2023	Exhibit 43 to Deposition Transcript of
TikTok	Ryn Linthicum	4/17/2025	Ryn Linthicum
TIKTOK	Kyn Emuncum	4/17/2023	Deposition Transcripts of Cristos
Google	Cristos Goodrow	2/19/2025	
Google	Clistos Goodlow	2/17/2023	Exhibit 1 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
Google	Cristos Goodrow	2/17/2023	Exhibit 2 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
Googic	Cristos Goodrow	2/17/2023	Exhibit 3 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
Google	Cristos Goodrow		Exhibit 4 to Deposition Transcript of
Google	Cristos Goodrow		Cristos Goodrow
Google	Cristos Goodfow	2/17/2023	Exhibit 5 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
Google	Chistos Goodfow	2/17/2023	Exhibit 6 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
000810	Chistos Coodro II	2/15/2020	Exhibit 7 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
333813	Chibres Coopers II	2/13/2020	Exhibit 8 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
			Exhibit 9 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
			Exhibit 10 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
<u> </u>			Exhibit 11 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
			Exhibit 12 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
			Exhibit 13 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
			Exhibit 14 to Deposition Transcript of
Google	Cristos Goodrow		Cristos Goodrow
			Exhibit 15 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow

Defendant	Witness	Date	Description
Derendant	VV ICHC55		Exhibit 16 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
Google	Chistos Goodiow	2/17/2023	Exhibit 17 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2025	Cristos Goodrow
Google	Chistos Goodiow		Exhibit 18 to Deposition Transcript of
Google	Cristos Goodrow		Cristos Goodrow
Google	Clisios Goodlow	2/17/2023	Exhibit 19 to Deposition Transcript of
Google	Cristos Goodrow	2/10/2025	Cristos Goodrow
Google	Clistos Goodlow	2/17/2023	Exhibit 20 to Deposition Transcript of
Google	Cristos Goodrow	2/10/2025	Cristos Goodrow
Google	Clisios Goodiow	2/19/2023	Exhibit 21 to Deposition Transcript of
Googla	Cristos Goodrow	2/10/2025	Cristos Goodrow
Google	Clistos Goodiow	2/19/2023	
Google	Cristos Goodrow	2/10/2025	Exhibit 22 to Deposition Transcript of Cristos Goodrow
Google	Clistos Goodlow	2/19/2023	
Coorlo	Cristos Goodrow	2/10/2025	Exhibit 23 to Deposition Transcript of Cristos Goodrow
Google	Cristos Goodrow		
Casala	Cristos Coodus		Exhibit 24 to Deposition Transcript of Cristos Goodrow
Google	Cristos Goodrow	2/19/2025	
C1-	Cointe a Constant	2/10/2025	Exhibit 25 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2023	Cristos Goodrow
Casala	Cristos Coodus	2/10/2025	Exhibit 26 to Deposition Transcript of
Google	Cristos Goodrow	2/19/2023	Cristos Goodrow
Casala	Cristos Coodus	2/10/2025	Exhibit 27 to Deposition Transcript of Cristos Goodrow
Google	Cristos Goodrow	2/19/2023	
C1-	Cointe o Constant	2/20/2025	Deposition Transcripts of Cristos
Google	Cristos Goodrow	2/20/2025	
C 1-	Cointe a Constant	2/20/2025	Exhibit 28 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
G 1		2/20/2025	Exhibit 29 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
C 1		2/20/2025	Exhibit 30 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
G 1		2/20/2027	Exhibit 31 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
		2/20/2027	Exhibit 32 to Deposition Transcript of
Google	Cristos Goodrow		Cristos Goodrow
g .			Exhibit 33 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 34 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow

Defendant	Witness	Date	Description
			Exhibit 35 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 36 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 37 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 38 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 39 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 40 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 41 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 42 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 43 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 44 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 45 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 46 to Deposition Transcript of
Google	Cristos Goodrow	2/20/2025	Cristos Goodrow
			Exhibit 47 to Deposition Transcript of
Google	Cristos Goodrow		Cristos Goodrow
Google	Erin Turner	1/22/2025	Deposition Transcripts of Erin Turner
			Exhibit 1 to Deposition Transcript of Erin
Google	Erin Turner	1/22/2025	
			Exhibit 2 to Deposition Transcript of Erin
Google	Erin Turner	1/22/2025	
			Exhibit 3 to Deposition Transcript of Erin
Google	Erin Turner	1/22/2025	
			Exhibit 4 to Deposition Transcript of Erin
Google	Erin Turner	1/22/2025	
			Exhibit 5 to Deposition Transcript of Erin
Google	Erin Turner	1/22/2025	
			Exhibit 6 to Deposition Transcript of Erin
Google	Erin Turner	1/22/2025	
			Exhibit 7 to Deposition Transcript of Erin
Google	Erin Turner	1/22/2025	Turner

Defendant	Witness	Date	Description
			Exhibit 8 to Deposition Transcript of Erin
Google	Erin Turner	1/22/2025	
			Exhibit 9 to Deposition Transcript of Erin
Google	Erin Turner	1/22/2025	-
			Exhibit 10 to Deposition Transcript of
Google	Erin Turner	1/22/2025	Erin Turner
			Exhibit 11 to Deposition Transcript of
Google	Erin Turner	1/22/2025	Erin Turner
			Exhibit 12 to Deposition Transcript of
Google	Erin Turner	1/22/2025	Erin Turner
			Exhibit 13 to Deposition Transcript of
Google	Erin Turner	1/22/2025	Erin Turner
			Exhibit 14 to Deposition Transcript of
Google	Erin Turner	1/22/2025	Erin Turner
			Exhibit 15 to Deposition Transcript of
Google	Erin Turner	1/22/2025	Erin Turner
			Exhibit 16 to Deposition Transcript of
Google	Erin Turner	1/22/2025	Erin Turner
			Exhibit 17 to Deposition Transcript of
Google	Erin Turner	1/22/2025	Erin Turner
Google	Fred Gilbert	2/20/2025	Deposition Transcripts of Fred Gilbert
			Exhibit 1 to Deposition Transcript of Fred
Google	Fred Gilbert	2/20/2025	Gilbert
			Exhibit 2 to Deposition Transcript of Fred
Google	Fred Gilbert	2/20/2025	Gilbert
			Exhibit 3 to Deposition Transcript of Fred
Google	Fred Gilbert	2/20/2025	Gilbert
			Exhibit 4 to Deposition Transcript of Fred
Google	Fred Gilbert	2/20/2025	Gilbert
			Exhibit 5 to Deposition Transcript of Fred
Google	Fred Gilbert	2/20/2025	
			Exhibit 6 to Deposition Transcript of Fred
Google	Fred Gilbert	2/20/2025	
			Exhibit 7 to Deposition Transcript of Fred
Google	Fred Gilbert	2/20/2025	
			Exhibit 8 to Deposition Transcript of Fred
Google	Fred Gilbert	2/20/2025	
-			Exhibit 9 to Deposition Transcript of Fred
Google	Fred Gilbert	2/20/2025	
			Exhibit 10 to Deposition Transcript of
Google	Fred Gilbert	2/20/2025	Fred Gilbert

Defendant	Witness	Date	Description
			Exhibit 11 to Deposition Transcript of
Google	Fred Gilbert	2/20/2025	Fred Gilbert
			Exhibit 12 to Deposition Transcript of
Google	Fred Gilbert	2/20/2025	Fred Gilbert
			Exhibit 13 to Deposition Transcript of
Google	Fred Gilbert	2/20/2025	Fred Gilbert
			Exhibit 14 to Deposition Transcript of
Google	Fred Gilbert	2/20/2025	Fred Gilbert
			Deposition Transcript of Katharina
Google	Katharina Ostergaard	1/15/2025	Ostergaard
			Exhibit 1 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 2 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 3 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 4 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 5 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 6 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 7 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 8 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 9 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 10 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 11 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 12 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 13 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 14 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
			Exhibit 15 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard

Defendant	Witness	Date	Description
Defendant	Withess		Exhibit 16 to Deposition Transcript of
Google	Katharina Ostergaard	1/15/2025	Katharina Ostergaard
Google	Woojin Kim		Deposition Transcripts of Woojin Kim
Google	W OOJIII KIIII	3/11/2023	Exhibit 1 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
Google	Troojiii Ixiiii	3/11/2023	Exhibit 2 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
5 + 1 8 - 1	,,,	3,33,232	Exhibit 3 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
			Exhibit 4 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
_			Exhibit 5 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
			Exhibit 6 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
			Exhibit 7 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
			Exhibit 8 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
			Exhibit 9 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
			Exhibit 10 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
			Exhibit 11 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
			Exhibit 12 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
G 1	777 '' 77'	2/11/2025	Exhibit 13 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
Casala	Wasiin Vins	2/11/2025	Exhibit 14 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
Googla	Wooiin Kim	3/11/2025	Exhibit 15 to Deposition Transcript of Woojin Kim
Google	Woojin Kim	3/11/2023	Exhibit 16 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
Jougie	11 OOJIII KIIII	3/11/2023	Exhibit 17 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
Jougie	17 Oojiii IXIIII	3/11/2023	Exhibit 18 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
300510	,, oojiii ixiiii	3/11/2023	Exhibit 19 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
55510	,, oojiii ixiiii	3/11/2023	

Defendant	Witness	Date	Description
Detelluant	Withess	Date	Exhibit 20 to Deposition Transcript of
Google	Woojin Kim	3/11/2025	Woojin Kim
333813	THE OFFICE ASSESSMENT	0,11,2020	Deposition Transcripts of Matt Fischer-
Google	Matt Fischer-Colbrie	3/7/2025	
<i>U</i>			Exhibit 1 to Deposition Transcript of
Google	Matt Fischer-Colbrie	3/7/2025	Matt Fischer-Colbrie
			Exhibit 2 to Deposition Transcript of
Google	Matt Fischer-Colbrie	3/7/2025	Matt Fischer-Colbrie
			Exhibit 3 to Deposition Transcript of
Google	Matt Fischer-Colbrie	3/7/2025	Matt Fischer-Colbrie
			Exhibit 4 to Deposition Transcript of
Google	Matt Fischer-Colbrie	3/7/2025	Matt Fischer-Colbrie
			Exhibit 5 to Deposition Transcript of
Google	Matt Fischer-Colbrie	3/7/2025	Matt Fischer-Colbrie
			Exhibit 6 to Deposition Transcript of
Google	Matt Fischer-Colbrie	3/7/2025	Matt Fischer-Colbrie
			Exhibit 7 to Deposition Transcript of
Google	Matt Fischer-Colbrie	3/7/2025	Matt Fischer-Colbrie
~ .		0.7.000	Exhibit 8 to Deposition Transcript of
Google	Matt Fischer-Colbrie	3/7/2025	Matt Fischer-Colbrie
G 1	M " E' 1 C 11 '	2/7/2025	Exhibit 9 to Deposition Transcript of
Google	Matt Fischer-Colbrie	3/1/2025	Matt Fischer-Colbrie
Casala	Mott Final on Calleria	2/7/2025	Exhibit 10 to Deposition Transcript of Matt Fischer-Colbrie
Google	Matt Fischer-Colbrie		Deposition Transcripts of Raj Iyengar
Google	Raj Iyengar	3/13/2023	Exhibit 1 to Deposition Transcript of Raj
Google	Raj Iyengar	3/13/2025	1 1 3
Googic	Raj Tychgai	3/13/2023	Exhibit 2 to Deposition Transcript of Raj
Google	Raj Iyengar	3/13/2025	
Google	Tay 17 ongui	3/13/2023	Exhibit 3 to Deposition Transcript of Raj
Google	Raj Iyengar	3/13/2025	1 "
	- y y - g -		Exhibit 4 to Deposition Transcript of Raj
Google	Raj Iyengar	3/13/2025	1
<u> </u>			Exhibit 5 to Deposition Transcript of Raj
Google	Raj Iyengar	3/13/2025	
			Exhibit 6 to Deposition Transcript of Raj
Google	Raj Iyengar	3/13/2025	Iyengar
			Exhibit 7 to Deposition Transcript of Raj
Google	Raj Iyengar	3/13/2025	Iyengar
			Exhibit 8 to Deposition Transcript of Raj
Google	Raj Iyengar	3/13/2025	Iyengar

Defendant	Witness	Date	Description
			Exhibit 9 to Deposition Transcript of Raj
Google	Raj Iyengar	3/13/2025	
	3 3 0		Exhibit 10 to Deposition Transcript of
Google	Raj Iyengar	3/13/2025	Raj Iyengar
Google	Reid Watson		Deposition Transcripts of Reid Watson
			Exhibit 1 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 2 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 3 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 4 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 5 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 6 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 7 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 8 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
~ .			Exhibit 9 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
G 1	D 1177	2/12/2025	Exhibit 10 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
C 1	D '1W/	2/12/2025	Exhibit 11 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
C1-	D-14 W-4	2/12/2025	Exhibit 12 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
Coogle	Reid Watson	2/12/2025	Exhibit 13 to Deposition Transcript of Reid Watson
Google	Keid Watsoli	3/12/2023	Exhibit 14 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
Google	Refu Watson	3/12/2023	Exhibit 15 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
Jougie	Retu Watson	3/12/2023	Exhibit 16 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
Soogie	TCIG Watson	3/12/2023	Exhibit 17 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
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Google	Reid Watson	3/12/2025	Reid Watson
200510	1010 11 40011	3/11/2023	

Defendant	Witness	Date	Description
			Exhibit 19 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
<u>U</u>			Exhibit 20 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 20a to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
J			Exhibit 21 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 22 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
Ū			Exhibit 23 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 24 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
_			Exhibit 25 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 26 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 27 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 28 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 29 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 30 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 31 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 32 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 33 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 34 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 35 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 36 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
			Exhibit 37 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson

Defendant	Witness	Date	Description
Deremanie	VVIOLESIS		Exhibit 38 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
Google	Tela Walson	3/12/2023	Exhibit 39 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
Google	Reid Watson	3/12/2023	Exhibit 40 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
Googic	Reid Watson	3/12/2023	Exhibit 41 to Deposition Transcript of
Google	Reid Watson	2/12/2025	Reid Watson
Google	Reiu watson	3/12/2023	
Coorlo	Daid Watson	2/12/2025	Exhibit 42 to Deposition Transcript of Reid Watson
Google	Reid Watson	3/12/2023	
C 1	D :1377	2/12/2025	Exhibit 43 to Deposition Transcript of
Google	Reid Watson	3/12/2025	Reid Watson
Con 1	China's D. W.	2/20/2025	Danceities Transmist of Cl. 14 D. W.
Google	Shimrit Ben-Yair	3/20/2025	Deposition Transcript of Shimrit Ben-Yair
G 1		2/20/2027	Exhibit 1 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 2 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 3 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 4 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 5 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 6 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 7 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 8 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 9 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 10 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 11 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 12 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
			Exhibit 13 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 14 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
Google	Sillilli Dell-Tall	3/20/2023	Exhibit 15 to Deposition Transcript of
Googla	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
Google	Similit Den-Tan	3/20/2023	
Google	Shimrit Ben-Yair	3/20/2025	Exhibit 16 to Deposition Transcript of Shimrit Ben-Yair
Google	Similit Den-Tan	3/20/2023	
Coogle	Shimrit Ben-Yair	2/20/2025	Exhibit 17 to Deposition Transcript of Shimrit Ben-Yair
Google	Sillilli Dell- I all	3/20/2023	Exhibit 18 to Deposition Transcript of
Googla	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
Google	Similit Ben-1 an	3/20/2023	
Googla	Shimrit Ben-Yair	3/20/2025	Exhibit 19 to Deposition Transcript of Shimrit Ben-Yair
Google	Sillilli Dell- I all	3/20/2023	
Google	Shimrit Ben-Yair	3/20/2025	Exhibit 20 to Deposition Transcript of Shimrit Ben-Yair
Google	Sillilli Dell-Tall	3/20/2023	
Google	Shimrit Ben-Yair	3/20/2025	Exhibit 21 to Deposition Transcript of Shimrit Ben-Yair
Google	Sillilli Dell-Tall	3/20/2023	Exhibit 22 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
Google	Sillilli Dell-Tall	3/20/2023	Exhibit 23 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
Googic	Similit Dell-Tall	3/20/2023	Exhibit 24 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
Google	Similar Den-Tan	3/20/2023	Exhibit 25 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
Google	Similar Den Tan	3/20/2023	Exhibit 26 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
Google	Similité Ben Tun	3/20/2023	Exhibit 27 to Deposition Transcript of
Google	Shimrit Ben-Yair	3/20/2025	Shimrit Ben-Yair
Google	Similar Ben Tun	3/20/2023	
Google	Tanaya Kasavana	1/28/2025	Deposition Transcript of Tanaya Kasavana
Google	Tunaya Ixasa vana	1/20/2023	Exhibit 1 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
Coogie	Tunaja Tusa vana	1,20,2020	Exhibit 2 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
200810	_ maj a 22aba (ana	1,20,2020	Exhibit 3 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
200810		1,20,2020	Exhibit 4 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
	1.		Exhibit 5 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
333810	- minj a rimon rana	1,20,2029	

Defendant	Witness	Date	Description
Defendant	Withess	Datte	·
Google	Tanaya Kasavana	1/28/2025	Exhibit 6 to Deposition Transcript of Tanaya Kasavana
Googic	Tanaya Kasavana	1/20/2023	Exhibit 7 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
Google	Tanaya Kasavana	1/20/2023	Exhibit 8 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
Coogie	Turaya Hasa varia	1,20,2020	Exhibit 9 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
			Exhibit 10 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
<u> </u>	Ť		Exhibit 11 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
			Exhibit 12 to Deposition Transcript of
Google	Tanaya Kasavana	1/28/2025	Tanaya Kasavana
	·		
Google	Tanaya Kasavana	1/29/2025	Deposition Transcript of Tanaya Kasavana
			Deposition Transcript of Caitlin
Google	Caitlin Niedermeyer	4/16/2025	Niedermeyer 30(b)(6)
			Exhibit 1 to Deposition Transcript of
Google	Caitlin Niedermeyer	4/16/2025	Caitlin Niedermeyer 30(b)(6)
			Exhibit 2 to Deposition Transcript of
Google	Caitlin Niedermeyer	4/16/2025	Caitlin Niedermeyer 30(b)(6)
			Exhibit 3 to Deposition Transcript of
Google	Caitlin Niedermeyer	4/16/2025	Caitlin Niedermeyer 30(b)(6)
			Exhibit 4 to Deposition Transcript of
Google	Caitlin Niedermeyer	4/16/2025	Caitlin Niedermeyer 30(b)(6)
			Exhibit 5 to Deposition Transcript of
Google	Caitlin Niedermeyer	4/16/2025	Caitlin Niedermeyer 30(b)(6)
			Exhibit 6 to Deposition Transcript of
Google	Caitlin Niedermeyer	4/16/2025	Caitlin Niedermeyer 30(b)(6)
			Exhibit 7 to Deposition Transcript of
Google	Caitlin Niedermeyer	4/16/2025	Caitlin Niedermeyer 30(b)(6)
			Exhibit 8 to Deposition Transcript of
Google	Caitlin Niedermeyer		Caitlin Niedermeyer 30(b)(6)
Google	Neal Mohan	4/24/2025	Deposition Transcript of Neal Mohan
G 1	N. 136 1	4/04/000=	Exhibit 1 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
C 1	NI INCI	4/04/0007	Exhibit 2 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
Carel	Neel Meler	4/04/2025	Exhibit 3 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 4 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
Google	iveal ivioliali	4/24/2023	
Conclo	Neel Mohan	4/24/2025	Exhibit 5 to Deposition Transcript of Neal Mohan
Google	Neal Mohan		
G 1	NT 134 1		Exhibit 6 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
			Exhibit 7 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
			Exhibit 8 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
			Exhibit 9 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
			Exhibit 10 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
			Exhibit 11 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
			Exhibit 12 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
			Exhibit 13 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
<u> </u>			Exhibit 14 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
			Exhibit 15 to Deposition Transcript of
Google	Neal Mohan	4/24/2025	Neal Mohan
<u> </u>			
Google	Adi Jain	3/21/2025	Deposition Transcript of Adi Jain 30(b)(6)
233812	1 101 0 0011		Exhibit 1 to Deposition Transcript of Adi
Google	Adi Jain		Jain 30(b)(6)
Google	Tital buill	3/21/2023	Exhibit 2 to Deposition Transcript of Adi
Google	Adi Jain	3/21/2025	Jain 30(b)(6)
Google	Aut Juiii	3/21/2023	Exhibit 3 to Deposition Transcript of Adi
Google	Adi Jain	3/21/2025	Jain 30(b)(6)
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Google	Adi Jain	3/21/2023	Jain 30(b)(6) Exhibit 5 to Demosition Transaction of Additional Control of C
Coorla	A di Tois	2/21/2025	Exhibit 5 to Deposition Transcript of Adi
Google	Adi Jain	3/21/2025	Jain 30(b)(6)
C 1	A1' W D 1	1/00/0007	Description Transport (CALL W. D. 1
Google	Alice Wu Paulus	1/29/2025	Deposition Transcript of Alice Wu Paulus
		4 /2 0 /2 0 = =	Exhibit 1 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus

Defendant	Witness	Date	Description
Defendant	Withess	Date	Exhibit 2 to Deposition Transcript of
Google	Alice Wu Paulus	1/20/2025	Alice Wu Paulus
Google	Affect wull autus	1/29/2023	
Googla	Alice Wu Paulus	1/20/2025	Exhibit 3 to Deposition Transcript of Alice Wu Paulus
Google	Alice wu raulus	1/29/2023	
Google	Alice Wu Paulus	1/20/2025	Exhibit 4 to Deposition Transcript of Alice Wu Paulus
Google	Affect wull autus	1/29/2023	
Coogle	Alice Wu Paulus	1/20/2025	Exhibit 5 to Deposition Transcript of Alice Wu Paulus
Google	Alice wu raulus	1/29/2023	Exhibit 6 to Deposition Transcript of
Googla	Alice Wu Paulus	1/20/2025	Alice Wu Paulus
Google	Affice wu Faulus	1/29/2023	
Coogle	Alice Wu Paulus	1/20/2025	Exhibit 7 to Deposition Transcript of Alice Wu Paulus
Google	Affice wu Faulus	1/29/2023	
Coogle	Alice Wu Paulus	1/20/2025	Exhibit 8 to Deposition Transcript of Alice Wu Paulus
Google	Affice wu Faulus	1/29/2023	
Coogle	Alice Wu Paulus	1/20/2025	Exhibit 9 to Deposition Transcript of Alice Wu Paulus
Google	Alice wu Faulus	1/29/2023	
Coogle	Alice Wu Paulus	1/20/2025	Exhibit 10 to Deposition Transcript of Alice Wu Paulus
Google	Affice wu Faulus	1/29/2023	
Coogle	Alice Wu Paulus	1/20/2025	Exhibit 11 to Deposition Transcript of Alice Wu Paulus
Google	Alice wu Faulus	1/29/2023	
Googla	Alice Wu Paulus	1/20/2025	Exhibit 12 to Deposition Transcript of Alice Wu Paulus
Google	Affect wu Faulus	1/29/2023	
Google	Alice Wu Paulus	1/20/2025	Exhibit 13 to Deposition Transcript of Alice Wu Paulus
Google	Affect wu f autus	1/29/2023	Exhibit 14 to Deposition Transcript of
Google	Alice Wu Paulus	1/20/2025	Alice Wu Paulus
Google	Affect wull autus	1/29/2023	Exhibit 15 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus
Joogic	Titlee war autus	1/2//2023	Exhibit 16 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus
Judgic	Titlee war autus	1/2//2023	Exhibit 17 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus
Googie	Timee vi a i auius	1/2//2023	Exhibit 18 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus
Jougie	rince it a radius	1/2//2023	Exhibit 19 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus
Joogie	ince it a radius	1/2//2023	Exhibit 20 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus
300510	inco it a radius	1/2//2023	Exhibit 21 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus
Jougic	1 Mice war autus	1/4//4043	1 11100 11 4 1 44140

Case 4:22-md-03047-YGR Document 2535-33 Filed 12/11/25 Page 471 of 737 General Causation Report of Stuart Murray (May 16, 2025)

Defendant	Witness	Date	Description
			Exhibit 22 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus
			Exhibit 23 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus
			Exhibit 24 to Deposition Transcript of
Google	Alice Wu Paulus	1/29/2025	Alice Wu Paulus

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	Canadian Medical Association	
	journal = journal de	
	l'Association medicale	
2020	canadienne	Abi-Jaoude, E.
	American Psychological	
2023	Association	Abrams, Z.
2004	Harvard Review Of Psychiatry	Adinoff, B.
	DACM II	
2023	PACM Human-Computer Interaction	Agha, Z.
2023	Interaction	rigina, Z.
2024	Journal of Affective Disorders	Ahmed, O.
2018	Journal of Eating Disorders	Alberga, A. S.
2018	Journal of Laurig Disorders	Alberga, A. S.
	Current Directions in	
2013	Psychological Science	Albert, D.
2019	Sleep Medicine Reviews	Alimoradi, Z.

Literature Review - Other Authors	Literature Review - Article NameTitle
Naylor, K. T. & Pignatiello, A.	Smartphones, social media use and youth mental health.
N/A	Why young brains are especially vulnerable to social media.
N/A	Neurobiologic processes in drug reward and addiction
Badillo-Urquiola, K. & Wisniewski, P. J.	"Strike at the Root": Co-designing Real-Time Social Media Interventions for Adolescent Online Risk Prevention
Walsh, E. I., Dawel, A., Alateeq, K., Espinoza Oyarce, D. A., & Cherbuin, N.	Social media use, mental health and sleep: A systematic review with meta-analyses.
Withnell, S. J. & von Ranson, K. M.	Fitspiration and thinspiration: a comparison across three social networking sites.
Chein, J. & Steinberg, L	The Teenage Brain: Peer Influences on Adolescent Decision Making.
Lin, C. Y., Broström, A., Bülow, P. H., Bajalan, Z., Griffiths, M. D., Ohayon, M. M. & Pakpour, A. H.	Internet addiction and sleep problems: A systematic review and meta-analysis.

Literature Review - APA Publication Cite

Abi-Jaoude, E., Naylor, K. T., & Pignatiello, A. (2020). Smartphones, social media use and youth mental health. CMAJ: Canadian Medical Association journal = journal de l'Association medicale canadienne, 192(6), E136–E141.

Abrams, Z. (2022, February 3). Why young brains are especially vulnerable to social media. The science behind why apps like TikTok, Instagram, and Snapchat impact your child's brain in a different way than your adult brain. APA Article.

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Adinoff, B. (2004). Neurobiologic processes in drug reward and addiction. Harvard Review of Psychiatry, 12(6), 305–320. https://doi.org/10.1080/10673220490910844

Agha, Z., Badillo-Urquiola, K., Wisniewski, P. J., (2023). "Strike at the Root": Co-designing Real-Time Social Media Interventions for Adolescent Online Risk Prevention. PACM Human-Computer Interaction, 7, Article 149. https://doi.org/10.1145/3579625

Ahmed, O., Walsh, E. I., Dawel, A., Alateeq, K., Espinoza Oyarce, D. A., & Cherbuin, N. (2024). Social media use, mental health and sleep: A systematic review with meta-analyses. Journal of Affective Disorders, 367, 701–712.

https://doi.org/10.1016/j.jad.2024.08.193

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Albert, D., Chein, J., & Steinberg, L. (2013). The Teenage Brain: Peer Influences on Adolescent Decision Making. Current Directions in Psychological Science, 22(2), 114-120. https://doi.org/10.1177/0963721412471347

Alimoradi, Z., Lin, C. Y., Broström, A., Bülow, P. H., Bajalan, Z., Griffiths, M. D., Ohayon, M. M., & Pakpour, A. H. (2019). Internet addiction and sleep problems: A systematic review and meta-analysis. Sleep Medicine Reviews, 47, 51–61. https://doi.org/10.1016/j.smrv.2019.06.004

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2019	American Economic Association	Allcott, H.
2021	Sleep Medicine Reviews	Alonzo, R.
2020	Dermatology Reports	Alsaidan, M. S.
2018	Medical Science Educator	Alsulami, A.
2019	Journal of Big Data	Al-Zuabi, I.M.
	American Psychiatric	•
2023	Association	American Psychiatric Association
2013	American Psychiatric Association	American Psychiatric Association, DSM-5 Task Force.
	American Psychological	American Psychological
2024	Association	Association

Literature Review - Other Authors	Literature Review - Article NameTitle
Luca B., Eichmeyer, S., & Gentzkow, M.	"The Welfare Effects of Social Media." [Abstract].
Hussain, J., Stranges, S., & Anderson, K. K.	Interplay between social media use, sleep quality, and mental health in youth: A systematic review.
Alsaidan, M. S., Altayar, N. S., Alshmmari, S. H., Alshammari, M. M., Alqahtani, F. T., & Mohajer, K. A.	The prevalence and determinants of body dysmorphic disorder among young social media users: A cross-sectional study.
Bakhsh, D., Baik, M., Merdad, M., & Aboalfaraj, N.	Assessment of Sleep Quality and its Relationship to Social Media Use Among Medical Students.
Jafar, A. & Aljoumaa, K.	Predicting customer's gender and age depending on mobile phone data.
N/A	Position Statement on Promoting Health and Protecting Vulnerable Populations from Social Media and Online Harms.
N/A	Diagnostic and statistical manual of mental disorders: DSM-5 (5th ed.).
N/A	Potential risks of content, features, and functions. A closer look at the science behind how social media affects youth.

Literature Review - APA Publication Cite

Allcott, H., Luca B., Eichmeyer, S., & Gentzkow, M. (2019). "The Welfare Effects of Social Media." [Abstract]. American Economic Association.

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Al-Zuabi, I.M., Jafar, A. & Aljoumaa, K. (2019). Predicting customer's gender and age depending on mobile phone data. Journal of Big Data, 6, 18. https://doi.org/10.1186/s40537-019-0180-9

American Psychiatric Association. (2023). Position Statement on Promoting Health and Protecting Vulnerable Populations from Social Media and Online Harms.

https://www.psychiatry.org/getattachment/846525c1-12f1-483d-893d-874e1726de54/Position-Social-Media-and-Online-Harms.pdf

American Psychiatric Association, DSM-5 Task Force. (2013). Diagnostic and statistical manual of mental disorders: DSM-5 (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

American Psychological Association (2024). Potential risks of content, features, and functions. A closer look at the science behind how social media affects youth.

https://www.apa.org/topics/social-media-internet/youth-social-media-2024

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2022 Mara 9	American Psychological	American Psychological
2023, May 8	Association	Association
2017	Addictive Behaviors	Andreassen, C. S.
2016	Clinical Psychology Review	Angelakis, I.
	, ,,,	,
2010	Pody Imaga	Aniviadia E
2019	Body Image	Anixiadis, F.
2020	Review of General Psychology	Appel, M.
	Proceeding of The	
	International Conference of Inovation, Science,	
	Technology, Education,	
2024	Children, and Health	Aqsyari R.
2011	Archives of General Psychiatry	Arcelus, J.
2019	New Media & Society	Arendt, F.

Literature Review - Other Authors	Literature Review - Article NameTitle
N/A	Health Advisory on Social Media Use in Adolescence.
Pallesen, S., & Griffiths, M. D.	The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey.
Gooding, P. A., & Panagioti, M.	Suicidality in body dysmorphic disorder (BDD): A systematic review with meta-analysis.
Wertheim, E. H., Rodgers, R., & Caruana, B.	Effects of thin-ideal instagram images: The roles of appearance comparisons, internalization of the thin ideal and critical media processing.
Marker, C., & Gnambs, T.	Are Social Media Ruining Our Lives? A Review of Meta-Analytic Evidence.
Kurniawan, H. D., Prisusanti, R.	Meta-Analysis: Effect of Social Media on Anxiety
D., & Irfandi, J.	Disorders in Adolescents.
Mitchell, A. J., Wales, J., & Nielsen, S.	Mortality rates in patients with anorexia nervosa and other eating disorders. A meta-analysis of 36 studies.
Scherr, S., & Romer, D.	Effects of exposure to self-harm on social media: Evidence from a two-wave panel study among young adults.

Literature Review - APA Publication Cite

American Psychological Association. (2023, May 8). Health Advisory on Social Media Use in Adolescence. https://www.apa.org/topics/social-media-internet/health-advisory-adolescent-social-media-use.pdf

Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. Addictive Behaviors, 64, 287–293.

Angelakis, I., Gooding, P. A., & Panagioti, M. (2016). Suicidality in body dysmorphic disorder (BDD): A systematic review with meta-analysis. Clinical Psychology Review, 49, 55–66. https://doi.org/10.1016/j.cpr.2016.08.002

Anixiadis, F., Wertheim, E. H., Rodgers, R., & Caruana, B. (2019). Effects of thin-ideal instagram images: The roles of appearance comparisons, internalization of the thin ideal and critical media processing. Body Image, 31, 181–190. https://doi.org/10.1016/j.bodyim.2019.10.005

Appel, M., Marker, C., & Gnambs, T. (2020). Are Social Media Ruining Our Lives? A Review of Meta-Analytic Evidence. Review of General Psychology, 24(1), 60-74. https://doi.org/10.1177/1089268019880891

Aqsyari R., Kurniawan, H. D., Prisusanti, R. D., & Irfandi, J. (2024) Meta-Analysis: Effect of Social Media on Anxiety Disorders in Adolescents. Proceeding of The International Conference of Inovation, Science, Technology, Education, Children, and Health, 4(2), 147-155.

Arcelus, J., Mitchell, A. J., Wales, J., & Nielsen, S. (2011). Mortality rates in patients with anorexia nervosa and other eating disorders. A meta-analysis of 36 studies. Archives of General Psychiatry, 68(7), 724–731.

https://doi.org/10.1001/archgenpsychiatry.2011.74

Arendt, F., Scherr, S., & Romer, D. (2019). Effects of exposure to self-harm on social media: Evidence from a two-wave panel study among young adults. New Media & Society, 21(11-12), 2422–2442. https://doi.org/10.1177/1461444819850106

Literature	Litanatura Daviara Januara	Litauatuwa Daviere, Lood Author
Review - Year	Literature Review - Journal	Literature Review - Lead Author
2021	Child Development Perspectives	Armstrong-Carter, E.
2021	respectives	rimotiong curtor, 2.
2022	Brain Imaging and Behavior	Asami, T.
	Carlal Danahiatan and	
2024	Social Psychiatry and Psychiatric Epidemiology	Askari, M. S.
	, ,	
2024	Frontiers in Public Health	Ateq, K.
2021	European Eating Disorders	
2021	Review	Austin, A.
	Cyberpsychology, Behavior,	
2016	and Social Networking	Baker, D. A.
2010	Cyberpsychology, Behavior,	Dolron N
2019	and Social Networking	Baker, N.

Literature Review - Other Authors	Literature Review - Article NameTitle
	Advancing measurement and research on youths'
Telzer, E. H.	prosocial behavior in the digital age.
Takaishi, M., Nakamura, R., Yoshimi, A., Konishi, J., Aoyama, K., Fujita, J., Miyazaki, H., Aoki, Y., Asanuma, K., Hattori, S., Suda, A., Whitford, T. J., Hirayasu, Y., & Hishimoto, A.	Structural brain abnormalities in adolescent patients with anorexia nervosa at both the acute and weight-recovered phase.
Belsky, D. W., Olfson, M., Breslau, J., Mojtabai, R., Kajeepeta, S., Bruzelius, E., & Keyes, K. M.	An integrative literature review of birth cohort and time period trends in adolescent depression in the United States.
Alhajji, M., & Alhusseini, N.	The association between use of social media and the development of body dysmorphic disorder and attitudes toward cosmetic surgeries: a national survey.
Flynn, M., Richards, K., Hodsoll, J., Duarte, T. A., Robinson, P., Kelly, J., & Schmidt, U.	Duration of untreated eating disorder and relationship to outcomes: A systematic review of the literature.
Algorta, G. P.	The relationship between online social networking and depression: A systematic review of quantitative studies.
Ferszt, G., & Breines, J. G.	A Qualitative Study Exploring Female College Students' Instagram Use and Body Image.

Literature Review - APA Publication Cite

Armstrong-Carter, E., & Telzer, E. H. (2021). Advancing measurement and research on youths' prosocial behavior in the digital age. Child Development Perspectives, 15(1), 31–36. https://doi.org/10.1111/cdep.12396

Asami, T., Takaishi, M., Nakamura, R., Yoshimi, A., Konishi, J., Aoyama, K., Fujita, J., Miyazaki, H., Aoki, Y., Asanuma, K., Hattori, S., Suda, A., Whitford, T. J., Hirayasu, Y., & Hishimoto, A. (2022). Structural brain abnormalities in adolescent patients with anorexia nervosa at both the acute and weight-recovered phase. Brain Imaging and Behavior, 16(3), 1372–1380. https://doi.org/10.1007/s11682-021-00622-5

Askari, M. S., Belsky, D. W., Olfson, M., Breslau, J., Mojtabai, R., Kajeepeta, S., Bruzelius, E., & Keyes, K. M. (2024). An integrative literature review of birth cohort and time period trends in adolescent depression in the United States. Social Psychiatry and Psychiatric Epidemiology, 59(6), 899–915.

Ateq, K., Alhajji, M., & Alhusseini, N. (2024). The association between use of social media and the development of body dysmorphic disorder and attitudes toward cosmetic surgeries: a national survey. Frontiers in Public Health, 12, 1324092. https://doi.org/10.3389/fpubh.2024.1324092

Austin, A., Flynn, M., Richards, K., Hodsoll, J., Duarte, T. A., Robinson, P., Kelly, J., & Schmidt, U. (2021). Duration of untreated eating disorder and relationship to outcomes: A systematic review of the literature. European Eating Disorders Review: The Journal of the Eating Disorders Association, 29(3), 329–345. https://doi.org/10.1002/erv.2745

Baker, D. A., & Algorta, G. P. (2016). The relationship between online social networking and depression: A systematic review of quantitative studies. Cyberpsychology, Behavior, and Social Networking,19(11): 638-648.

Baker, N., Ferszt, G., & Breines, J. G. (2019). A Qualitative Study Exploring Female College Students' Instagram Use and Body Image. Cyberpsychology, Behavior and Social Networking, 22(4), 277–282. https://doi.org/10.1089/cyber.2018.0420

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	The International Journal of	
2007	Eating Disorders	Bardone-Cone, A. M.
2007	Eurig Disorders	Bardone Cone, 11. 141.
2019	Neuroscience and Biobehavioral Reviews	Barona, M.
2019	Biodelia violai Reviews	Durona, IVI
2020	Annual Review of Psychology	Bayer, J. B.
	Psychotherapy and	
2023	Psychosomatics	Behrens, S. C.
2022	Journal of Medical Internet Research	Berger, M. N.
2014	Body Image	Berne, S.
2018	The Psychiatric Quarterly	Berryman, C.
2020	Scientific Reports	Beyens, I.
2020	Seronano Reporto	20,0110, 1.
2021	Current Pediatrics Reports	Bickham D. S.

Literature Review - Other Authors	Literature Review - Article NameTitle
Cass, K. M.	What does viewing a pro-anorexia website do? An experimental examination of website exposure and moderating effects.
Brown, M., Clark, C., Frangou, S., White, T., & Micali, N.	White matter alterations in anorexia nervosa: Evidence from a voxel-based meta-analysis.
TI IA DI O FIII IN D	
Triệu, P., & Ellison, N. B.	Social media elements, ecologies, and effects.
Tesch, J., Sun, P. J. B., Starke, S., Black, M. J., Schneider, H., Pruccoli, J., Zipfel, S., & Giel, K. E.	Virtual Reality Exposure to a Healthy Weight Body Is a Promising Adjunct Treatment for Anorexia Nervosa.
Taba, M., Marino, J. L., Lim, M. S. C., & Skinner, S. R.	Social Media Use and Health and Well-being of Lesbian, Gay, Bisexual, Transgender, and Queer Youth: Systematic Review.
Frisén, A., & Kling, J.	Appearance-related cyberbullying: a qualitative investigation of characteristics, content, reasons, and effects.
Ferguson, C. J., & Negy, C.	Social Media Use and Mental Health among Young Adults.
Pouwels, J. L., van Driel, I. I., Keijsers, L., & Valkenburg, P. M.	The effect of social media on well-being differs from adolescent to adolescent.
N/A	Current Research and Viewpoints on Internet Addiction in Adolescents.

Literature Review - APA Publication Cite

Bardone-Cone, A. M., & Cass, K. M. (2007). What does viewing a pro-anorexia website do? An experimental examination of website exposure and moderating effects. The International Journal of Eating Disorders, 40(6), 537–548.

Barona, M., Brown, M., Clark, C., Frangou, S., White, T., & Micali, N. (2019). White matter alterations in anorexia nervosa: Evidence from a voxel-based meta-analysis. Neuroscience and Biobehavioral Reviews, 100, 285–295.

https://doi.org/10.1016/j.neubiorev.2019.03.002

Bayer, J. B., Triệu, P., & Ellison, N. B. (2020). Social media elements, ecologies, and effects. Annual Review of Psychology, 71, 471–497. https://doi.org/10.1146/annurev-psych-010419-050944

Behrens, S. C., Tesch, J., Sun, P. J. B., Starke, S., Black, M. J., Schneider, H., Pruccoli, J., Zipfel, S., & Giel, K. E. (2023). Virtual Reality Exposure to a Healthy Weight Body Is a Promising Adjunct Treatment for Anorexia Nervosa. Psychotherapy and Psychosomatics, 92(3), 170–179. https://doi.org/10.1159/000530932

Berger, M. N., Taba, M., Marino, J. L., Lim, M. S. C., & Skinner, S. R. (2022). Social Media Use and Health and Well-being of Lesbian, Gay, Bisexual, Transgender, and Queer Youth: Systematic Review. Journal of Medical Internet Research, 24(9), e38449. https://doi.org/10.2196/38449

Berne, S., Frisén, A., & Kling, J. (2014). Appearance-related cyberbullying: a qualitative investigation of characteristics, content, reasons, and effects. Body Image, 11(4), 527–533. https://doi.org/10.1016/j.bodyim.2014.08.006

Berryman, C., Ferguson, C. J., & Negy, C. (2018). Social Media Use and Mental Health among Young Adults. The Psychiatric Quarterly, 89(2), 307–314. https://doi.org/10.1007/s11126-017-9535-6

Beyens, I., Pouwels, J. L., van Driel, I. I., Keijsers, L., & Valkenburg, P. M. (2020). The effect of social media on well-being differs from adolescent to adolescent. Scientific Reports, 10, 10763. https://doi.org/10.1038/s41598-020-67727-7

Bickham D. S. (2021). Current Research and Viewpoints on Internet Addiction in Adolescents. Current Pediatrics Reports, 9(1), 1–10. https://doi.org/10.1007/s40124-020-00236-3

Literature		
Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2024	Psychology of Popular Media,	Bissell, K.
	, SJ 1	,
2022	ICDD A 1	
2022	JCPP Advances	Black, L.
2023	Obesity Reviews	Blanchard, L.
2022	Journal of Youth and	
2023	Adolescence	Boer, M.
	Journal of Service	
2013	Management	Bolton, R.
2025	Lancet Regional Health	Bommersbach, T. J.
2025	Body Image	Bonfanti, R. C.

Literature Review - Other Authors	Literature Review - Article NameTitle
Chou, S.	Living for the likes: Social media use, fear of missing out, and body and life satisfaction in women.
Panayiotou, M., & Humphrey, N.	Measuring general mental health in early-mid adolescence: A systematic meta-review of content and psychometrics.
Conway-Moore, K., Aguiar, A., Önal, F., Rutter, H., Helleve, A., Nwosu, E., Falcone, J., Savona, N., Boyland, E., & Knai, C.	Associations between social media, adolescent mental health, and diet: A systematic review.
Cosma, A., Twenge, J. M., Inchley, J., Jeriček Klanšček, H., & Stevens, G. W. J. M.	National-Level Schoolwork Pressure, Family Structure, Internet Use, and Obesity as Drivers of Time Trends in Adolescent Psychological Complaints Between 2002 and 2018.
Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., Loureiro, Y. K., & Solnet, D.	Understanding Generation Y and their use of social media: A review and research agenda.
Olfson, M., & Rhee, T. G.	Trends in depressive symptoms among high school students with and without health-risk behaviors in the United States: A population-based study.
Melchiori, F., Teti, A., Albano, G., Raffard, S., Rodgers, R., & Lo Coco, G.	The association between social comparison in social media, body image concerns and eating disorder symptoms: A systematic review and meta-analysis.

Literature Review - APA Publication Cite

Bissell, K., & Chou, S. (2024). Living for the likes: Social media use, fear of missing out, and body and life satisfaction in women. Psychology of Popular Media, 13(3), 481–489. https://doi.org/10.1037/ppm0000507

Black, L., Panayiotou, M., & Humphrey, N. (2022). Measuring general mental health in early-mid adolescence: A systematic metareview of content and psychometrics. JCPP Advances, 3(1), e12125. https://doi.org/10.1002/jcv2.12125

Blanchard, L., Conway-Moore, K., Aguiar, A., Önal, F., Rutter, H., Helleve, A., Nwosu, E., Falcone, J., Savona, N., Boyland, E., & Knai, C. (2023). Associations between social media, adolescent mental health, and diet: A systematic review. Obesity reviews: an official journal of the International Association for the Study of Obesity, 24 Suppl 2, e13631.

Boer, M., Cosma, A., Twenge, J. M., Inchley, J., Jeriček Klanšček, H., & Stevens, G. W. J. M. (2023). National-Level Schoolwork Pressure, Family Structure, Internet Use, and Obesity as Drivers of Time Trends in Adolescent Psychological Complaints Between 2002 and 2018. Journal of Youth and Adolescence, 52(10), 2061–2077. https://doi.org/10.1007/s10964-023-01800-y

Bolton, R., Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., Loureiro, Y. K., & Solnet, D. (2013). Understanding Generation Y and their use of social media: A review and research agenda. Journal of Service Management, 24(3), 245-267.

Bommersbach, T. J., Olfson, M., & Rhee, T. G. (2025). Trends in depressive symptoms among high school students with and without health-risk behaviors in the United States: A population-based study. Lancet Regional Health. Americas, 42, 101000. https://doi.org/10.1016/j.lana.2025.101000

Bonfanti, R. C., Melchiori, F., Teti, A., Albano, G., Raffard, S., Rodgers, R., & Lo Coco, G. (2025). The association between social comparison in social media, body image concerns and eating disorder symptoms: A systematic review and meta-analysis. Body Image, 52, 101841.

https://doi.org/10.1016/j.bodyim.2024.101841

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
Tear		
2022	Computers in Human Behavior	Boniel-Nissim, M.
2024	JAMA Psychiatry	Borrione, L.
2017	European Radiology	Boto, J.
	1 0/	,
2022	Current Addiction Reports	Bottaro, R.
2020	Training, Language and	Dottoon II
2020	Culture	Bottger, H.
	Journal of Medical Internet	
2021	Research	Bour, C.

Literature Review - Other Authors	Literature Review - Article NameTitle
van den Eijnden, R. J. J. M., Furstova, J., Marino, C., Lahti, H., Inchley, J., Šmigelskas, K.,	International perspectives on social media use among adolescents: Implications for mental and
Vieno, A., & Badura, P. Cavendish, B. A., Aparicio, L. V. M., Luethi, M. S., Goerigk, S., Ramos, M. R. F., Moran, N. K. S., Carneiro, A. M., Valiengo, L., Moura, D. O., de Souza, J. P., Batista, M. P., Aparecida da Silva, V., Klein, I., Suen, P., Gallucci-Neto, J., Padberg, F., Razza, L. B., Vanderhasselt, M. A., Lotufo, P. A., Brunoni, A. R.	Home-Use Transcranial Direct Current Stimulation for the Treatment of a Major Depressive Episode: A Randomized Clinical Trial.
Boto, J., Gkinis, G., Roche, A., Kober, T., Maréchal, B., Ortiz, N., Lövblad, K. O., Lazeyras, F., & Vargas, M. I.	Evaluating anorexia-related brain atrophy using MP2RAGE-based morphometry.
Faraci, P.	The Use of Social Networking Sites and Its Impact on Adolescents' Emotional Well-Being: a Scoping Review.
Koltzch, D.	The fear factor: Xenoglossophobia or how to overcome the anxiety of speaking foreign languages.
Ahne, A., Schmitz, S., Perchoux, C., Dessenne, C., & Fagherazzi, G.	The Use of Social Media for Health Research Purposes: Scoping Review.

Literature Review - APA Publication Cite

Boniel-Nissim, M., van den Eijnden, R. J. J. M., Furstova, J., Marino, C., Lahti, H., Inchley, J., Šmigelskas, K., Vieno, A., & Badura, P. (2022). International perspectives on social media use among adolescents: Implications for mental and social well-being and substance use. Computers in Human Behavior, 129, Article 107144. https://doi.org/10.1016/j.chb.2021.107144

Borrione, L., Cavendish, B. A., Aparicio, L. V. M., Luethi, M. S., Goerigk, S., Ramos, M. R. F., Moran, N. K. S., Carneiro, A. M., Valiengo, L., Moura, D. O., de Souza, J. P., Batista, M. P., Aparecida da Silva, V., Klein, I., Suen, P., Gallucci-Neto, J., Padberg, F., Razza, L. B., Vanderhasselt, M. A., Lotufo, P. A., ... Brunoni, A. R. (2024). Home-Use Transcranial Direct Current Stimulation for the Treatment of a Major Depressive Episode: A Randomized Clinical Trial. JAMA Psychiatry, 81(4), 329–337. https://doi.org/10.1001/jamapsychiatry.2023.4948

Boto, J., Gkinis, G., Roche, A., Kober, T., Maréchal, B., Ortiz, N., Lövblad, K. O., Lazeyras, F., & Vargas, M. I. (2017). Evaluating anorexia-related brain atrophy using MP2RAGE-based morphometry. European Radiology, 27(12), 5064–5072. https://doi.org/10.1007/s00330-017-4914-9

Bottaro, R., & Faraci, P. (2022). The Use of Social Networking Sites and Its Impact on Adolescents' Emotional Well-Being: a Scoping Review. Current Addiction Reports, 9(4), 518–539. https://doi.org/10.1007/s40429-022-00445-4

Bottger, H. & Koltzch, D. (2020). The fear factor: Xenoglossophobia or how to overcome the anxiety of speaking foreign languages. Training, Language and Culture, 4, 43-55.

Bour, C., Ahne, A., Schmitz, S., Perchoux, C., Dessenne, C., & Fagherazzi, G. (2021). The Use of Social Media for Health Research Purposes: Scoping Review. Journal of Medical Internet Research, 23(5), e25736. https://doi.org/10.2196/25736

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2022	International Journal of Environmental Research and Public Health	Bozzola, E.
2022	American Economic Review	Braghieri, L.
2020	Cyberpsychology, Behavior, and Social Networking	Brailovskaia, J.
2024	Body Image	Brasil, K. M.
2023	Sleep Medicine Reviews	Brautsch, L. A.
2018	NCHS	Brody, D. J.
2018	Psychological Medicine	Brown, R. C.
2016	Body Image	Brown, Z.
2022	Journal of Health Psychology	Brown, Z.

Literature Review - Other Authors	Literature Review - Article NameTitle
Spina, G., Agostiniani, R., Barni, S., Russo, R., Scarpato, E., Di Mauro, A., Di Stefano, A. V., Caruso, C., Corsello, G., & Staiano, A.	The Use of Social Media in Children and Adolescents: Scoping Review on the Potential Risks.
Levy, R., & Makarin, A.	Social media and mental health.
Teismann, T., & Margraf, J.	Positive Mental Health Mediates the Relationship Between Facebook Addiction Disorder and Suicide- Related Outcomes: A Longitudinal Approach.
Mims, C. E., Pritchard, M. E., & McDermott, R. C.	Social media and body image: Relationships between social media appearance preoccupation, self-objectification, and body image.
Lund, L., Andersen, M. M., Jennum, P. J., Folker, A. P., & Andersen, S.	Digital media use and sleep in late adolescence and young adulthood: A systematic review.
Pratt, L. A., & Hughes, J. P.	Prevalence of Depression Among Adults Aged 20 and Over: United States, 2013-2016.
Fischer, T., Goldwich, A. D., Keller, F., Young, R., & Plener, P. L.	#cutting: Non-suicidal self-injury (NSSI) on Instagram.
Tiggemann, M.	Attractive celebrity and peer images on Instagram: Effect on women's mood and body image.
Tiggemann, M.	Celebrity influence on body image and eating disorders: A review.

Literature Review - APA Publication Cite

Bozzola, E., Spina, G., Agostiniani, R., Barni, S., Russo, R., Scarpato, E., Di Mauro, A., Di Stefano, A. V., Caruso, C., Corsello, G., & Staiano, A. (2022). The Use of Social Media in Children and Adolescents: Scoping Review on the Potential Risks. International Journal of Environmental Research and Public Health, 19(16), 9960. https://doi.org/10.3390/ijerph19169960

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Brody, D. J., Pratt, L. A., & Hughes, J. P. (2018). Prevalence of Depression Among Adults Aged 20 and Over: United States, 2013-2016. NCHS data brief, (303), 1–8.

Brown, R. C., Fischer, T., Goldwich, A. D., Keller, F., Young, R., & Plener, P. L. (2018). #cutting: Non-suicidal self-injury (NSSI) on Instagram. Psychological Medicine, 48(2), 337–346.

Brown, Z., & Tiggemann, M. (2016). Attractive celebrity and peer images on Instagram: Effect on women's mood and body image. Body Image, 19, 37–43.

Brown, Z., & Tiggemann, M. (2022). Celebrity influence on body image and eating disorders: A review. Journal of Health Psychology, 27(5), 1233–1251.

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Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2023	PLOS One	Buda, T. S.
2010	Psychiatry Research	Buhlmann, U.
2024	Frontiers in Oncology	Burch, J. B.
2020	Journal of Neurology and Neurophysiology	Burhan, R.
2005	Clinical Psychology: Science and Practice	Cafri, G.
2024	Translational Dayshiatry	Coi II
2024	Translational Psychiatry	Cai, H.
	Annual Hawaii International Conference on System	
2018	Sciences	Carey, J. L.

Literature Review - Other Authors	Literature Review - Article NameTitle
Khwaja, M., Garriga, R., & Matic, A.	Two edges of the screen: Unpacking positive and negative associations between phone use in everyday contexts and subjective well-being.
Glaesmer, H., Mewes, R., Fama, J. M., Wilhelm, S., Brähler, E., & Rief, W.	Updates on the prevalence of body dysmorphic disorder: a population-based survey.
Delage, A. F., Zhang, H., McLain, A. C., Ray, M. A., Miller, A., Adams, S. A., & Hébert, J. R.	Sleep disorders and cancer incidence: examining duration and severity of diagnosis among veterans.
Moradzadeh, J.	Updates on the prevalence of body dysmorphic disorder: a population-based survey.
Yamamiya, Y., Brannick, M., & Thompson, J. K.	The influence of sociocultural factors on body image: A meta-analysis.
Chen, P., Jin, Y., Zhang, Q., Cheung, T., Ng, C. H., Xiang, Y. T., & Feng, Y.	Prevalence of sleep disturbances in children and adolescents during COVID-19 pandemic: a meta-analysis and systematic review of epidemiological surveys.
Carreiro, S., Chapman, B., Nader, N., Chai, P. R., Pagoto, S., & Jake-Schoffman, D. E.	SoMe and Self Harm: The use of social media in depressed and suicidal youth. Proceedings of the Annual Hawaii International Conference on System Sciences.

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Burhan, R., & Moradzadeh, J. (2020). Neurotransmitter Dopamine (DA) and its Role in the Development of Social Media Addiction. Journal of Neurology and Neurophysiology, 11, 1-2.

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Cai, H., Chen, P., Jin, Y., Zhang, Q., Cheung, T., Ng, C. H., Xiang, Y. T., & Feng, Y. (2024). Prevalence of sleep disturbances in children and adolescents during COVID-19 pandemic: a meta-analysis and systematic review of epidemiological surveys. Translational Psychiatry, 14(1), 12. https://doi.org/10.1038/s41398-023-02654-5

Carey, J. L., Carreiro, S., Chapman, B., Nader, N., Chai, P. R., Pagoto, S., & Jake-Schoffman, D. E. (2018). SoMe and Self Harm: The use of social media in depressed and suicidal youth. Proceedings of the ... Annual Hawaii International Conference on System Sciences. Annual Hawaii International Conference on System Sciences, 2018, 3314–3319. https://doi.org/10.24251/HICSS.2018.420

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	Journal of Medical Internet	
2015	Research	Carrotte, E. R.
2016	JAMA Pediatrics	Carter, B.
	American Journal of	
2002	Psychiatry	Casacalenda, N.
2021	Current Psychology	Casale, S.
2023	JMIR Research Protocols	Casale, S.
	European Archives of	
	Psychiatry and Clinical	
2021	Neuroscience	Castro-Fornieles, J.
2021	Frontiers in Psychiatry	Cataldo, I.

Literature Review - Other Authors	Literature Review - Article NameTitle
Vella, A. M., & Lim, M. S.	Predictors of "Liking" Three Types of Health and Fitness-Related Content on Social Media: A Cross-Sectional Study.
Rees, P., Hale, L., Bhattacharjee, D., & Paradkar, M. S.	Association Between Portable Screen-Based Media Device Access or Use and Sleep Outcomes: A Systematic Review and Meta-analysis.
Perry, J. C., & Looper, K.	Remission in Major Depressive Disorder: A Comparison of Pharmacotherapy, Psychotherapy, and Control Conditions.
Gemelli, G., Calosi, C., Giangrasso, B., & Fioravanti, G.	Multiple exposure to appearance-focused real accounts on instagram: Effects on body image among both genders.
Gemelli, G., Calosi, C., Giangrasso, B., & Fioravanti, G.	Effect of technology and digital media use on adolscent health and development: protocol for a multimethod longitudinal study.
de la Serna, E., Calvo, A., Pariente, J., Andrés-Perpiña, S., Plana, M. T., Romero, S., Flamarique, I., Gárriz, M., & Bargalló, N.	Cortical thickness 20 years after diagnosis of anorexia nervosa during adolescence.
Lepri, B., Neoh, M. J. Y., & Esposito, G.	Social Media Usage and Development of Psychiatric Disorders in Childhood and Adolescence: A Review.

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Carrotte, E. R., Vella, A. M., & Lim, M. S. (2015). Predictors of "Liking" Three Types of Health and Fitness-Related Content on Social Media: A Cross-Sectional Study. Journal of Medical Internet Research, 17(8), e205.

Carter, B., Rees, P., Hale, L., Bhattacharjee, D., & Paradkar, M. S. (2016). Association Between Portable Screen-Based Media Device Access or Use and Sleep Outcomes: A Systematic Review and Meta-analysis. JAMA Pediatrics, 170(12), 1202–1208. https://doi.org/10.1001/jamapediatrics.2016.2341

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Castro-Fornieles, J., de la Serna, E., Calvo, A., Pariente, J., Andrés-Perpiña, S., Plana, M. T., Romero, S., Flamarique, I., Gárriz, M., & Bargalló, N. (2021). Cortical thickness 20 years after diagnosis of anorexia nervosa during adolescence. European Archives of Psychiatry and Clinical Neuroscience, 271(6), 1133–1139. https://doi.org/10.1007/s00406-019-00992-4

Cataldo, I., Lepri, B., Neoh, M. J. Y., & Esposito, G. (2021). Social Media Usage and Development of Psychiatric Disorders in Childhood and Adolescence: A Review. Frontiers in Psychiatry, 11, 508595. https://doi.org/10.3389/fpsyt.2020.508595

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2023	Institute for Fiscal Studies	Cattan, S.
2023	New Media & Society	Chansiri, K.
2010		
2019	JAMA Facial Plastic Surgery	Chen, J.
2024	International Journal of Mental Health and Addiction	Chen, Y.
2021	Addictive Behaviors	Cheng, C.
	Educational Psychology Review	Chou, C.
2022	Clinical Child and Family Psychology Review	Choukas-Bradley, S.

Literature Review - Other Authors	Literature Review - Article NameTitle
Farquharson, C., Krutikova, S., McKendrick, A., & Sevilla, A.	IFS Report R267. How did parents' experiences in the labour market shape children's social and emotional development during the epidemic?
Wongphothiphan, T.	The indirect effects of Instagram images on women's self-esteem: The moderating roles of BMI and perceived weight.
Ishii, M., Bater, K. L., Darrach, H., Liao, D., Huynh, P. P., Reh, I. P., Nellis, J. C., Kumar, A. R., & Ishii, L. E.	Association Between the Use of Social Media and Photograph Editing Applications, Self-esteem, and Cosmetic Surgery Acceptance.
Li, S., Tian, Y., Li, D., & Yin, H.	Problematic social media use may be ruining our sleep: A meta-analysis on the relationship between problematic social media use and sleep quality.
Lau, Y. C., Chan, L., & Luk, J. W.	Prevalence of social media addiction across 32 nations: Meta-analysis with subgroup analysis of classification schemes and cultural values.
Condron, L. & Belland, J.C.	A Review of the Research on Internet Addiction.
Roberts, S. R., Maheux, A. J., &	The Perfect Storm: A Developmental-Sociocultural Framework for the Role of Social Media in Adolescent Girls' Body Image Concerns and
Nesi, J.	Mental Health.

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Cattan, S., Farquharson, C., Krutikova, S., McKendrick, A., & Sevilla, A. (2023). IFS Report R267. How did parents' experiences in the labour market shape children's social and emotional development during the epidemic? Institute for Fiscal Studies. https://ifs.org.uk/sites/default/files/2023-07/Final-Parents-experience-of-labour-market-IFS-Report.pdf

Chansiri, K., & Wongphothiphan, T. (2023). The indirect effects of Instagram images on women's self-esteem: The moderating roles of BMI and perceived weight. New Media & Society, 25(10), 2572-2594. https://doi.org/10.1177/14614448211029975

Chen, J., Ishii, M., Bater, K. L., Darrach, H., Liao, D., Huynh, P. P., Reh, I. P., Nellis, J. C., Kumar, A. R., & Ishii, L. E. (2019). Association Between the Use of Social Media and Photograph Editing Applications, Self-esteem, and Cosmetic Surgery Acceptance. JAMA Facial Plastic Surgery, 21(5), 361–367. https://doi.org/10.1001/jamafacial.2019.0328

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Cheng, C., Lau, Y. C., Chan, L., & Luk, J. W. (2021). Prevalence of social media addiction across 32 nations: Meta-analysis with subgroup analysis of classification schemes and cultural values. Addictive Behaviors, 117, 106845.

Chou, C., Condron, L. & Belland, J.C. (2005). A Review of the Research on Internet Addiction. Educational Psychology Review, 17, 363–388. https://doi.org/10.1007/s10648-005-8138-1

Choukas-Bradley, S., Roberts, S. R., Maheux, A. J., & Nesi, J. (2022). The Perfect Storm: A Developmental-Sociocultural Framework for the Role of Social Media in Adolescent Girls' Body Image Concerns and Mental Health. Clinical Child and Family Psychology Review, 25(4), 681–701. https://doi.org/10.1007/s10567-022-00404-5

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2013	Pediatrics	Christakis, D. A.
2023	Eating Behaviors	Christensen Pacella, K. A.
2023	Preventative Medicine	Chu, J.
2018	Burns Open	Chu, V.
2022	Current Opinion in Psychology	Cingel, D. P.
2019	New Media & Society	Cohen, R.
2021	Journal of Healthy Psychology	Cohen, R.
2022	Eating Disorders	Cooper, M.

Literature Review - Other Authors	Literature Review - Article NameTitle
Garrison, M. M., Herrenkohl, T., Haggerty, K., Rivara, F. P.,	Modifying media content for preschool children: a
Zhou, C., & Liekweg, K.	randomized controlled trial.
Chen, Y., Forbush, K. T., Cushing, C. C., & Swinburne Romine, R.	Prospectively predicting naturalistic exposure to fitspiration and thinspiration in young women with disordered eating by leveraging an ecological momentary assessment design.
Ganson, K. T., Baker, F. C., Testa, A., Jackson, D. B., Murray, S. B., & Nagata, J. M.	Screen time and suicidal behaviors among U.S. children 9-11 years old: A prospective cohort study.
Begaj, A., & Patel, L.	Burns challenges - A social media dictated phenomena in the younger generation.
Carter, M. C., & Krause, H. V.	Social media and self-esteem.
Fardouly, J., Newton-John, T., & Slater, A.	#BoPo on Instagram: An experimental investigation of the effects of viewing body positive content on young women's mood and body image.
Newton-John, T., & Slater, A.	The case for body positivity on social media: Perspectives on current advances and future directions.
Reilly, E. E., Siegel, J. A., Coniglio, K., Sadeh-Sharvit, S., Pisetsky, E. M., & Anderson, L. M.	Eating disorders during the COVID-19 pandemic and quarantine: an overview of risks and recommendations for treatment and early intervention.

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Christakis, D. A., Garrison, M. M., Herrenkohl, T., Haggerty, K., Rivara, F. P., Zhou, C., & Liekweg, K. (2013). Modifying media content for preschool children: a randomized controlled trial. Pediatrics, 131(3), 431–438. https://doi.org/10.1542/peds.2012-1493

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Chu, J., Ganson, K. T., Baker, F. C., Testa, A., Jackson, D. B., Murray, S. B., & Nagata, J. M. (2023). Screen time and suicidal behaviors among U.S. children 9-11 years old: A prospective cohort study. Preventive Medicine, 169, 107452.

Chu, V., Begaj, A., & Patel, L. (2018). Burns challenges - A social media dictated phenomena in the younger generation. Burns Open 2, 94-97. https://doi.org/10.1016/j.burnso.2017.12.002

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Cohen, R., Fardouly, J., Newton-John, T., & Slater, A. (2019). #BoPo on Instagram: An experimental investigation of the effects of viewing body positive content on young women's mood and body image. New Media & Society, 21(7), 1546–1564. https://doi.org/10.1177/1461444819826530

Cohen, R., Newton-John, T., & Slater, A. (2021). The case for body positivity on social media: Perspectives on current advances and future directions. Journal of Health Psychology, 26(13), 2365–2373. https://doi.org/10.1177/1359105320912450

Cooper, M., Reilly, E. E., Siegel, J. A., Coniglio, K., Sadeh-Sharvit, S., Pisetsky, E. M., & Anderson, L. M. (2022). Eating disorders during the COVID-19 pandemic and quarantine: an overview of risks and recommendations for treatment and early intervention. Eating Disorders, 30(1), 54–76. https://doi.org/10.1080/10640266.2020.1790271

Literature		
Review - Year	Literature Review - Journal	Literature Review - Lead Author
2022	National Bureau of Economic	
2023	Research	Corredor-Waldron, A.
	Cyberpsychology: Journal of	
2018	Psychosocial Research on Cyberspace	Coulthard, N.
2018	Cyberspace	Countillard, IV.
2016	Pediatrics	Council on Communications and Media
2010	1 containes	1770dia
2021	Cyberpsychology, Behavior	
2021	and Social Networking	Course-Choi, J.
2020	Body Image	Couture Bue, A. C.
2020	Computers in Human Behavior	Coyne, S.
2010	Journal of Research on	
2019	Adolescence	Coyne, S. M.
	Diamonda D' 1	
2007	Pharmacology, Biochemistry, and Behavior	Crews, F.

Literature Review - Other Authors	Literature Review - Article NameTitle
Currie, J.	To what extent are trends in teen mental health driven by changes in reporting? The example of suicide-related hospital visits.
Ogden, J.	The impact of posting selfies and gaining feedback ('likes') on the psychological wellbeing of 16-25 year olds: an experimental study.
N/A	Media Use in School-Aged Children and Adolescents.
Hammond, L.	Social Media Use and Adolescent Well-Being: A Narrative Review of Longitudinal Studies.
Harrison, K.	Visual and cognitive processing of thin-ideal Instagram images containing idealized or disclaimer comments.
Rogers, A. A., Zurcher, J. D., Stockdale, L., & Booth, M.	Does time spent using social media impact mental health?: An eight year longitudinal study.
Padilla-Walker, L. M., Holmgren, H. G., & Stockdale, L. A.	Instagrowth: A Longitudinal Growth Mixture Model of Social Media Time Use Across Adolescence.
He, J., & Hodge, C	Adolescent cortical development: a critical period of vulnerability for addiction.

Literature Review - APA Publication Cite

Corredor-Waldron, A., & Currie, J. (2023). To what extent are trends in teen mental health driven by changes in reporting? The example of suicide-related hospital visits. Working Paper 31493. National Bureau of Economic Research.

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https://doi.org/10.1089/cyber.2020.0020

Couture Bue, A. C., & Harrison, K. (2020). Visual and cognitive processing of thin-ideal Instagram images containing idealized or disclaimer comments. Body image, 33, 152–163. https://doi.org/10.1016/j.bodyim.2020.02.014

Coyne, S., Rogers, A. A., Zurcher, J. D., Stockdale, L., & Booth, M. (2020). Does time spent using social media impact mental health?: An eight year longitudinal study. Computers in Human Behavior, 104, 106160.

Coyne, S. M., Padilla-Walker, L. M., Holmgren, H. G., & Stockdale, L. A. (2019). Instagrowth: A Longitudinal Growth Mixture Model of Social Media Time Use Across Adolescence. Journal of Research on Adolescence: the Official Journal of the Society for Research on Adolescence, 29(4), 897–907. https://doi.org/10.1111/jora.12424

Crews, F., He, J., & Hodge, C. (2007). Adolescent cortical development: a critical period of vulnerability for addiction. Pharmacology, Biochemistry, and Behavior, 86(2), 189–199. https://doi.org/10.1016/j.pbb.2006.12.001

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2014	Comprehensive Psychiatry	Crow, S. J.
2021	Acta psychiatrica Scandinavica	Cuijpers, P.
2021	Research on Child and Adolescent Psychopathology	Cunningham, S.
2015	European Journal of Pediatrics	Custors V
2013	European Journal of Fedianics	Custers, K.
2024	Journal of Eating Disorders	Dahlgren, C. L.
2021	Journal of Lating Disorders	Dunigren, C. E.
	European Child & Adolescent	
2015	Psychiatry	Dakanalis, A.
	Journal of the American	
2021	Academy of Child & Adolescent Psychiatry	Damodar, S.

Literature Review - Other Authors	Literature Review - Article NameTitle
Swanson, S. A., le Grange, D., Feig, E. H., & Merikangas, K. R.	Suicidal behavior in adolescents and adults with bulimia nervosa.
Karyotaki, E., Ciharova, M., Miguel, C., Noma, H., & Furukawa, T. A.	The effects of psychotherapies for depression on response, remission, reliable change, and deterioration: A meta-analysis.
Hudson, C. C., & Harkness, K.	Social Media and Depression Symptoms: A Meta-Analysis.
N/A	The urgent matter of online pro-eating disorder content and children: clinical practice.
Sundgot-Borgen, C., Kvalem, I. L., Wennersberg, A. L., & Wisting, L.	Further evidence of the association between social media use, eating disorder pathology and appearance ideals and pressure: a cross-sectional study in Norwegian adolescents.
Carrà, G., Calogero, R., Fida, R., Clerici, M., Zanetti, M. A., & Riva, G.	The developmental effects of media-ideal internalization and self-objectification processes on adolescents' negative body-feelings, dietary restraint, and binge eating.
Gurusamy, V., Parrill, A.,	
Lokemoen, C., Bishev, D., Takhi, M., DeViney, M., Person, U., Ijendu, K., Branch, R.	1.1 #Trending: Social Media's Influence on Adolescent Anxiety and Depression.

Literature Review - APA Publication Cite

Crow, S. J., Swanson, S. A., le Grange, D., Feig, E. H., & Merikangas, K. R. (2014). Suicidal behavior in adolescents and adults with bulimia nervosa. Comprehensive Psychiatry, 55(7), 1534–1539. https://doi.org/10.1016/j.comppsych.2014.05.021

Cuijpers, P., Karyotaki, E., Ciharova, M., Miguel, C., Noma, H., & Furukawa, T. A. (2021). The effects of psychotherapies for depression on response, remission, reliable change, and deterioration: A meta-analysis. Acta psychiatrica Scandinavica, 144(3), 288–299. https://doi.org/10.1111/acps.13335

Cunningham, S., Hudson, C. C., & Harkness, K. (2021). Social Media and Depression Symptoms: A Meta-Analysis. Research on Child and Adolescent Psychopathology, 49(2), 241-253.

Custers, K. (2015). The urgent matter of online pro-eating disorder content and children: clinical practice. European Journal of Pediatrics, 174(4), 429–433. https://doi.org/10.1007/s00431-015-2487-7

Dahlgren, C. L., Sundgot-Borgen, C., Kvalem, I. L., Wennersberg, A. L., & Wisting, L. (2024). Further evidence of the association between social media use, eating disorder pathology and appearance ideals and pressure: a cross-sectional study in Norwegian adolescents. Journal of Eating Disorders, 12(1), 34. https://doi.org/10.1186/s40337-024-00992-3

Dakanalis, A., Carrà, G., Calogero, R., Fida, R., Clerici, M., Zanetti, M. A., & Riva, G. (2015). The developmental effects of media-ideal internalization and self-objectification processes on adolescents' negative body-feelings, dietary restraint, and binge eating. European Child & Adolescent Psychiatry, 24(8), 997–1010. https://doi.org/10.1007/s00787-014-0649-1

Damodar, S., Gurusamy, V., Parrill, A., Lokemoen, C., Bishev, D., Takhi, M., DeViney, M., Person, U., Ijendu, K., Branch, R. (2021). 1.1 #Trending: Social Media's Influence on Adolescent Anxiety and Depression. Journal of the American Academy of Child & Adolescent Psychiatry, Volume 60, Issue 10, S139.

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2023	PLOS Global Public Health	Dane, A.
2023	1 LOS GIODAI I UDITE HEALTH	Dune, 11.
2023	Journal of Children and Media	Das, R.
2000	The Niet 1 Niet - A	Davis T
2008	The National Youth Agency	Davies, T.
2022	Trauma, Violence & Abuse	Day, S.
2024	Body Image	De Coen, J.
2022	Nutricion Hospitalaria	de Diego Díaz Plaza, M.
2020	Journal of the Academy of Marketing Science	de Oliveira Santini, F.
2020	TVIAIRCHING DOIGHOC	ac Onvena Santini, 1.

Literature Review - Other Authors	Literature Review - Article NameTitle
Bhatia, K.	The social media diet: A scoping review to investigate the association between social media, body image and eating disorders amongst young people.
N/A	Parents' understandings of social media algorithms in children's lives in England: Misunderstandings, parked understandings, transactional understandings and proactive understandings amidst datafication.
Crantson, P.	Youth Work and Social Networking Final Research Report. How can Youth Work best support young people to navigate the risks and make the most of the opportunities of online social networking?
Bussey, K., Trompeter, N., & Mitchison, D.	The Impact of Teasing and Bullying Victimization on Disordered Eating and Body Image Disturbance Among Adolescents: A Systematic Review.
Goossens, L., Bosmans, G., Debra, G., & Verbeken, S.	Body dissatisfaction and disordered eating symptoms in children's daily life: Can parents protect against appearance comparison on social media?.
Novalbos Ruiz, J. P., Rodríguez Martín, A., Santi Cano, M. J., & Belmonte Cortés, S.	The Impact of Teasing and Bullying Victimization on Disordered Eating and Body Image Disturbance Among Adolescents: A Systematic Review.
Ladeira, W.J., Pinto, D., Herter, M. M., Sampaio, C. H., & Babin, B. J.	Customer engagement in social media: a framework and meta-analysis.

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Dane, A., & Bhatia, K. (2023). The social media diet: A scoping review to investigate the association between social media, body image and eating disorders amongst young people. PLOS Global Public Health, 3(3), e0001091.

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https://doi.org/10.1080/17482798.2023.2240899

Davies, T. & Crantson, P. (2008). Youth Work and Social Networking Final Research Report. How can Youth Work best support young people to navigate the risks and make the most of the opportunities of online social networking? The National Youth Agency

Day, S., Bussey, K., Trompeter, N., & Mitchison, D. (2022). The Impact of Teasing and Bullying Victimization on Disordered Eating and Body Image Disturbance Among Adolescents: A Systematic Review. Trauma, Violence & Abuse, 23(3), 985–1006. https://doi.org/10.1177/1524838020985534

De Coen, J., Goossens, L., Bosmans, G., Debra, G., & Verbeken, S. (2024). Body dissatisfaction and disordered eating symptoms in children's daily life: Can parents protect against appearance comparison on social media?. Body Image, 48, 101647. https://doi.org/10.1016/j.bodyim.2023.101647

de Diego Díaz Plaza, M., Novalbos Ruiz, J. P., Rodríguez Martín, A., Santi Cano, M. J., & Belmonte Cortés, S. (2022). Social media and cyberbullying in eating disorders. Nutricion Hospitalaria, 39(Spec No2), 62–67. https://doi.org/10.20960/nh.04180

de Oliveira Santini, F., Ladeira, W.J., Pinto, D., Herter, M. M., Sampaio, C. H., & Babin, B. J. (2020). Customer engagement in social media: a framework and meta-analysis. Journal of the Academy of Marketing Science, 48, 1211–1228. https://doi.org/10.1007/s11747-020-00731-5

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	The International Journal of	
2022	Eating Disorders	de Valle, M.K.
2022	Brain Sciences	Dekkers, T. J.
2025	Emotion	Depow, G. J.
	PODPORA A ROZVOJ	
	DUŠEVNÉHO ZDRAVIA V	
2023	ŠKOLÁCH, 8.	Di Sano, S.
	Dialogues in Clinical	
2020	Neuroscience	Dienlin, T.
	Health Promotion and Chronic	
2021	Disease Prevention in Canada:	Doon N
2021	Research, Policy and Practice	Doan, N.
	Journal of Preventive	
2022	Medicine and Hygiene	Donato, K.

Literature Review - Other Authors	Literature Review - Article NameTitle
Wade, T.D.	Targeting the link between social media and eating disorder risk: A randomized controlled pilot study.
van Hoorn, J.	Understanding Problematic Social Media Use in Adolescents with Attention-Deficit/Hyperactivity Disorder (ADHD): A Narrative Review and Clinical Recommendations.
Oldemburgo de Mello, V., & Inzlicht, M.	A positive empathy intervention to improve well-being on Instagram.
Paola, D. E.	Exploring the impact of social media use on mental health in adolescents benefits, risks,, and the role of schools and school psychologists.
Johannes, N.	The impact of digital technology use on adolescent well-being.
Romano, I., Butler, A., Laxer, R. E., Patte, K. A., & Leatherdale, S. T.	Weight control intentions and mental health among Canadian adolescents: a gender-based analysis of students in the COMPASS study.
Ceccarini, M. R., Dhuli, K., Bonetti, G., Medori, M. C., Marceddu, G., Precone, V., Xhufi, S., Bushati, M., Bozo, D.,	Gene variants in eating disorders. Focus on anorexia nervosa, bulimia nervosa, and binge-
Beccari, T., & Bertelli, M.	eating disorder

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de Valle, M.K., & Wade, T.D. (2022). Targeting the link between social media and eating disorder risk: A randomized controlled pilot study. The International Journal of Eating Disorders, 1-13. https://doi.org/10.1002/eat.23756

Dekkers, T. J., & van Hoorn, J. (2022). Understanding Problematic Social Media Use in Adolescents with Attention-Deficit/Hyperactivity Disorder (ADHD): A Narrative Review and Clinical Recommendations. Brain Sciences, 12(12), 1625. https://doi.org/10.3390/brainsci12121625

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Di Sano, S., & Paola, D. E. (2023). Exploring the impact of social media use on mental health in adolescents benefits, risks,, and the role of schools and school psychologists. PODPORA A ROZVOJ DUŠEVNÉHO ZDRAVIA V ŠKOLÁCH, 8.

Dienlin, T., & Johannes, N. (2020). The impact of digital technology use on adolescent well-being. Dialogues in Clinical Neuroscience, 22(2), 135–142.

https://doi.org/10.31887/DCNS.2020.22.2/tdienlin

Doan, N., Romano, I., Butler, A., Laxer, R. E., Patte, K. A., & Leatherdale, S. T. (2021). Weight control intentions and mental health among Canadian adolescents: a gender-based analysis of students in the COMPASS study. Health Promotion and Chronic Disease Prevention in Canada: Research, Policy and Practice, 41(4), 119–130. https://doi.org/10.24095/hpcdp.41.4.01

Donato, K., Ceccarini, M. R., Dhuli, K., Bonetti, G., Medori, M. C., Marceddu, G., Precone, V., Xhufi, S., Bushati, M., Bozo, D., Beccari, T., & Bertelli, M. (2022). Gene variants in eating disorders. Focus on anorexia nervosa, bulimia nervosa, and bingeeating disorder. Journal of Preventive Medicine and Hygiene, 63(2 Suppl 3), E297–E305. https://doi.org/10.15167/2421-4248/jpmh2022.63.2S3.2772

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	The International Journal of	
2024	Eating Disorders	Dondzilo, L.
2024	BMC Psychology	Du, M.
2019	Currenty Obesity Reports	Dumas, A. A.
	The Journal of Social Media	
2020	in Society	Dunn, T. R.
2016	PloS One	Dyson, M. P.
2010	Tios one	Dyson, 11. 1 .
2017	The Journal of Clinical Psychiatry	Eddy, K. T.
2017	1 Sychiatry	, 11. 1.
2022	IAMA Psychiatry	Firich R
2022	JAMA Psychiatry	Eirich, R.

Literature Review - Other Authors	Literature Review - Article NameTitle
Rodgers, R. F., & Dietel, F. A.	Association between engagement with appearance and eating related TikTok content and eating disorder symptoms via recommended content and appearance comparisons.
Zhao, C., Hu, H., Ding, N., He, J., Tian, W., Zhao, W., Lin, X., Liu, G., Chen, W., Wang, S., Wang, P., Xu, D., Shen, X., & Zhang, G.	Association between problematic social networking use and anxiety symptoms: a systematic review and meta-analysis.
Desroches, S.	Women's Use of Social Media: What Is the Evidence About Their Impact on Weight Management and Body Image?.
Langlais, M. R.	"Oh, Snap!": A Mixed-Methods Approach to Analyzing the Dark Side of Snapchat
Hartling, L., Shulhan, J., Chisholm, A., Milne, A., Sundar, P., Scott, S. D., & Newton, A. S.	A Systematic Review of Social Media Use to Discuss and View Deliberate Self-Harm Acts.
Tabri, N., Thomas, J. J., Murray, H. B., Keshaviah, A., Hastings, E., Edkins, K., Krishna, M., Herzog, D. B., Keel, P. K., & Franko, D. L.	Recovery From Anorexia Nervosa and Bulimia Nervosa at 22-Year Follow-Up.
McArthur, B. A., Anhorn, C., McGuinness, C., Christakis, D. A., & Madigan, S.	Association of Screen Time With Internalizing and Externalizing Behavior Problems in Children 12 Years or Younger: A Systematic Review and Metanalysis.

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Du, M., Zhao, C., Hu, H., Ding, N., He, J., Tian, W., Zhao, W., Lin, X., Liu, G., Chen, W., Wang, S., Wang, P., Xu, D., Shen, X., & Zhang, G. (2024). Association between problematic social networking use and anxiety symptoms: a systematic review and meta-analysis. BMC Psychology, 12, 263. https://doi.org/10.1186/s40359-024-01705-w

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Eddy, K. T., Tabri, N., Thomas, J. J., Murray, H. B., Keshaviah, A., Hastings, E., Edkins, K., Krishna, M., Herzog, D. B., Keel, P. K., & Franko, D. L. (2017). Recovery From Anorexia Nervosa and Bulimia Nervosa at 22-Year Follow-Up. The Journal of Clinical Psychiatry, 78(2), 184–189. https://doi.org/10.4088/JCP.15m10393

Eirich, R., McArthur, B. A., Anhorn, C., McGuinness, C., Christakis, D. A., & Madigan, S. (2022). Association of Screen Time With Internalizing and Externalizing Behavior Problems in Children 12 Years or Younger: A Systematic Review and Meta-analysis. JAMA Psychiatry, 79(5), 393–405. https://doi.org/10.1001/jamapsychiatry.2022.0155

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2018	Malaysian Journal of Medicine and Health Sciences	Elsadai
2018	JMIR Mental Health	Escobar-Viera, C. G.
2010	The Journal of Clinical Endocrinology and Metabolism	Estour, B.
2010	TVICULO OTISTI	Listour, D.
2023	SSM - Population Health	Ettman, C. K.
2021	Computers in Human Behavior	Faelens, L.
2003	Behaviour Research and Therapy	Fairburn, C. G.

Literature Review - Other Authors	Literature Review - Article NameTitle
Susanti, R. D., & Eriyani, T.	Relationship between the Intensity of Instagram Utilisation and the Tendency of Body Dysmorphic Disorder in Female Students.
Whitfield, D. L., Wessel, C. B., Shensa, A., Sidani, J. E., Brown, A. L., Chandler, C. J., Hoffman, B. L., Marshal, M. P., & Primack, B. A.	For Better or for Worse? A Systematic Review of the Evidence on Social Media Use and Depression Among Lesbian, Gay, and Bisexual Minorities.
Germain, N., Diconne, E., Frere, D., Cottet-Emard, J. M., Carrot, G., Lang, F., & Galusca, B.	Hormonal profile heterogeneity and short-term physical risk in restrictive anorexia nervosa.
Fan, A. Y., Subramanian, M., Adam, G. P., Badillo Goicoechea, E., Abdalla, S. M., Stuart, E. A., & Galea, S.	Prevalence of depressive symptoms in U.S. adults during the COVID-19 pandemic: A systematic review.
Hoorelbeke, K., Cambier, R., van Put, J., Van de putte, E., De Raedt, R., & Koster, E.	The relationship between Instagram use and indicators of mental health: A systematic review.
Cooper, Z., & Shafran, R.	Cognitive behaviour therapy for eating disorders: a "transdiagnostic" theory and treatment.

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Elsadai, Susanti, R. D., & Eriyani, T. (2022). Relationship between the Intensity of Instagram Utilisation and the Tendency of Body Dysmorphic Disorder in Female Students. Malaysian Journal of Medicine and Health Sciences, 18(SUPP3), 106-109. https://medic.upm.edu.my/upload/dokumen/2022030110483521_0 950.pdf

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Estour, B., Germain, N., Diconne, E., Frere, D., Cottet-Emard, J. M., Carrot, G., Lang, F., & Galusca, B. (2010). Hormonal profile heterogeneity and short-term physical risk in restrictive anorexia nervosa. The Journal of Clinical Endocrinology and Metabolism, 95(5), 2203–2210. https://doi.org/10.1210/jc.2009-2608

Ettman, C. K., Fan, A. Y., Subramanian, M., Adam, G. P., Badillo Goicoechea, E., Abdalla, S. M., Stuart, E. A., & Galea, S. (2023). Prevalence of depressive symptoms in U.S. adults during the COVID-19 pandemic: A systematic review. SSM - Population Health, 21, 101348. https://doi.org/10.1016/j.ssmph.2023.101348

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Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: a "transdiagnostic" theory and treatment. Behaviour Research and Therapy, 41(5), 509–528. https://doi.org/10.1016/s0005-7967(02)00088-8

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2018	New Media & Society	Fardouly, J.
2010	Thew initiative Society	Tardoury, J.
2016	Current Opinion in Psychology	Fardouly, J.
2022	Journal of Eating Disorders	Fardouly, J.
2015	Body Image	Fardouly, J.
		J.
2017	Dody Image	Fondouls: I
2017	Body Image	Fardouly, J.
	Development and	
2008	Psychopathology	Fareri, D. S.
2010	m 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	F '1 II
2018	Technology and Innovation Journal of Online Trust and	Farid, H.
2021	Safety	Farid, H.
2021		
2024	JAMA Pediatrics	Fassi, L.
2024	JAMIA I CUIAUICS	1 assi, L.

Literature Review - Other Authors	Literature Review - Article NameTitle
Holland, E.	Social media is not real life: The effect of attaching disclaimer-type labels to idealized social media images on women's body image and mood.
Vartanian, L. R.	Social media and body image concerns: current research and future directions.
Crosby, R.D. & Sukunesan, S.	Potential benefits and limitations of machine learning in the field of eating disorders: current research and future directions.
Diedrichs, P. C., Vartanian, L. R., & Halliwell, E.	Social comparisons on social media: the impact of Facebook on young women's body image concerns and mood.
Pinkus, R. T., & Vartanian, L. R.	The impact of appearance comparisons made through social media, traditional media, and in person in women's everyday lives.
Martin, L. N., & Delgado, M. R.	Reward-related processing in the human brain: developmental considerations.
N/A	Reward-related processing in the human brain: developmental considerations.
N/A	An overview of perceptual hashing.
	1 37 3 3 3 3
Thomas, K., Parry, D. A., Leyland-Craggs, A., Ford, T. J., & Orben, A.	Social Media Use and Internalizing Symptoms in Clinical and Community Adolescent Samples: A Systematic Review and Meta-Analysis.

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Fardouly, J., & Holland, E. (2018). Social media is not real life: The effect of attaching disclaimer-type labels to idealized social media images on women's body image and mood. New Media & Society, 20(11), 4311-4328.

https://doi.org/10.1177/1461444818771083

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http://dx.doi.org/10.1016/j.copsyc.2015.09.005

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https://doi.org/10.1016/j.bodyim.2014.12.002

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Fareri, D. S., Martin, L. N., & Delgado, M. R. (2008). Reward-related processing in the human brain: developmental considerations. Development and Psychopathology, 20(4), 1191–1211. https://doi.org/10.1017/S0954579408000576

Farid, H. (2018). Reining in Online Abuses. Technology and Innovation, 19, 593-599.

Farid, H. (2021). An overview of perceptual hashing. Journal of Online Trust and Safety, 1-22.

Fassi, L., Thomas, K., Parry, D. A., Leyland-Craggs, A., Ford, T. J., & Orben, A. (2024). Social Media Use and Internalizing Symptoms in Clinical and Community Adolescent Samples: A Systematic Review and Meta-Analysis. JAMA Pediatrics, 178(8), 814–822. https://doi.org/10.1001/jamapediatrics.2024.2078

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2023	Technology, Mind, and Behavior	Faulhaber, M. E.
1997	Acta psychiatrica Scandinavica	Favaro A
	Journal of Economic	Fehr, E.
2022	Professional Psychology: Research and Practice	Ferguson, C. J.
2024	Psychology of Popular Media	Ferguson, C.J.
	The International Journal of	
2017	Eating Disorders	Fichter, M. M.
2020	Eating and Weight Disorders	Fitzsimmons-Craft, E. E.
2023	Nature Reviews Psychology	Flayelle, M.

Literature Review - Other Authors	Literature Review - Article NameTitle
Lee, J. E., & Gentile, D. A.	The effect of self-monitoring limited social media use on psychological well-being.
Santonastaso, P.	Suicidality in eating disorders: clinical and psychological correlates.
Gachter, S.	Fairness and Retaliation: The Economics of Reciprocity.
Kaye, L. K., Branley-Bell, D., Markey, P., Ivory, J. D., Klisanin, D., Elson, M., Smyth, M., Hogg, J. L., McDonnell, D., Nichols, D., Siddiqui, S., Gregerson, M., & Wilson, J	Like this meta-analysis: Screen media and mental health.
N/A	Do social media experiments prove a link with mental health: A methodological and meta-analytic review.
Quadflieg, N., Crosby, R. D., & Koch, S.	Long-term outcome of anorexia nervosa: Results from a large clinical longitudinal study.
Krauss, M. J., Costello, S. J., Floyd, G. M., Wilfley, D. E., & Cavazos-Rehg, P. A.	Adolescents and young adults engaged with proeating disorder social media: eating disorder and comorbid psychopathology, health care utilization, treatment barriers, and opinions on harnessing technology for treatment.
Brevers, D., King, D.L., Maurage, P., Perales, J. C., & Billieux, J.	A taxonomy of technology design features that promote potentially addictive online behaviours.

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Faulhaber, M. E., Lee, J. E., & Gentile, D. A. (2023). The effect of self-monitoring limited social media use on psychological well-being. Technology, Mind, and Behavior, 4(2). https://doi.org/10.1037/tmb0000111

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Fehr, E. & Gachter, S. (2000). Fairness and Retaliation: The Economics of Reciprocity. Journal of Economic Perspectives, 14(3), 159-181.

Ferguson, C. J., Kaye, L. K., Branley-Bell, D., Markey, P., Ivory, J. D., Klisanin, D., Elson, M., Smyth, M., Hogg, J. L., McDonnell, D., Nichols, D., Siddiqui, S., Gregerson, M., & Wilson, J. (2022). Like this meta-analysis: Screen media and mental health. Professional Psychology: Research and Practice, 53(2), 205–214. https://doi.org/10.1037/pro0000426

Ferguson, C. J. (2024). Do social media experiments prove a link with mental health: A methodological and meta-analytic review. Psychology of Popular Media. Advance online publication. https://dx.doi.org/10.1037/ppm0000541

Fichter, M. M., Quadflieg, N., Crosby, R. D., & Koch, S. (2017). Long-term outcome of anorexia nervosa: Results from a large clinical longitudinal study. The International Journal of Eating Disorders, 50(9), 1018–1030. https://doi.org/10.1002/eat.22736

Fitzsimmons-Craft, E. E., Krauss, M. J., Costello, S. J., Floyd, G. M., Wilfley, D. E., & Cavazos-Rehg, P. A. (2020). Adolescents and young adults engaged with pro-eating disorder social media: eating disorder and comorbid psychopathology, health care utilization, treatment barriers, and opinions on harnessing technology for treatment. Eating and Weight Disorders, 25(6), 1681–1692. https://doi.org/10.1007/s40519-019-00808-3

Flayelle, M., Brevers, D., King, D.L., Maurage, P., Perales, J. C., & Billieux, J. (2023). A taxonomy of technology design features that promote potentially addictive online behaviours. Nature Reviews Psychology, 136–150 (2023). https://doi.org/10.1038/s44159-023-00153-4

Literature		
Review - Year	Literature Review - Journal	Literature Review - Lead Author
2009	European Psychiatry	Forcano, L.
2015		
2015	Sleep Medicine	Ford, E. S.
2024	Sleep Medicine	Fornaro, M.
2012	NeuroImage	Friederich, H. C.,
2017	Education Policy Institute	Frith, E.
		,
2017	Computers in Human Behavior	Frost, R.L.
	Journal of the Association for	
2024	Consumer Research	Fumagalli, E.

Literature Review - Other Authors	Literature Review - Article NameTitle
Fernández-Aranda, F., Alvarez- Moya, E., Bulik, C., Granero, R., Gratacòs, M., Jiménez-Murcia, S., Krug, I., Mercader, J. M., Riesco, N., Saus, E., Santamaría, J. J., & Estivill, X.	Suicide attempts in bulimia nervosa: personality and psychopathological correlates.
Cunningham, T. J., Giles, W. H., & Croft, J. B.	Trends in insomnia and excessive daytime sleepiness among U.S. adults from 2002 to 2012.
Caiazza, C., De Simone, G., Rossano, F., & de Bartolomeis, A.	Insomnia and related mental health conditions: Essential neurobiological underpinnings towards reduced polypharmacy utilization rates.
Walther, S., Bendszus, M., Biller, A., Thomann, P., Zeigermann, S., Katus, T., Brunner, R., Zastrow, A., & Herzog, W.	Grey matter abnormalities within cortico-limbic- striatal circuits in acute and weight-restored anorexia nervosa patients.
N/A	Social Media and Children's Mental Health—A Review of the Evidence.
Rickwood, D.J.	A systematic review of the mental health outcomes associated with Facebook use.
Shrum, L. J., & Lowrey, T. M.	he effects of social media consumption on adolescent psychological well-being.

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Forcano, L., Fernández-Aranda, F., Alvarez-Moya, E., Bulik, C., Granero, R., Gratacòs, M., Jiménez-Murcia, S., Krug, I., Mercader, J. M., Riesco, N., Saus, E., Santamaría, J. J., & Estivill, X. (2009). Suicide attempts in bulimia nervosa: personality and psychopathological correlates. European Psychiatry, 24(2), 91–97. https://doi.org/10.1016/j.eurpsy.2008.10.002

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https://doi.org/10.1016/j.chb.2017.08.001

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Literature		
Review - Year	Literature Review - Journal	Literature Review - Lead Author
2024	Body Image	Ganson, K. T.
	, c	
2009	Chest	Gardini Gardenghi, G.
2018	Sleep Health	Garland, S. N.
2012	Pediatrics	Garrison, M. M.
2019	Journal of Psychiatry & Neuroscience	Gaudio, S.
2017		
2023	Cureus	Ghali, S.
2015	Body Image	Ghaznavi, J.

Literature Review - Other Authors	Literature Review - Article NameTitle
Testa, A., Rodgers, R. F., & Nagata, J. M.	Use of photo filters is associated with muscle dysmorphia symptomatology among adolescents and young adults.
Boni, E., Todisco, P., Manara, F., Borghesi, A., & Tantucci, C.	Respiratory function in patients with stable anorexia nervosa.
Rowe, H., Repa, L. M., Fowler, K., Zhou, E. S., & Grandner, M. A.	A decade's difference: 10-year change in insomnia symptom prevalence in Canada depends on sociodemographics and health status.
Christakis, D. A.	The impact of a healthy media use intervention on sleep in preschool children.
Carducci, F., Piervincenzi, C., Olivo, G., & Schiöth, H. B.	Altered thalamo–cortical and occipital–parietal–temporal–frontal white matter connections in patients with anorexia and bulimia nervosa: a systematic review of diffusion tensor imaging studies.
Afifi, S., Suryadevara, V., Habab, Y., Hutcheson, A., Panjiyar, B. K., Davydov, G. G., Nashat, H., & Nath, T. S.	A Systematic Review of the Association of Internet Gaming Disorder and Excessive Social Media Use With Psychiatric Comorbidities in Children and Adolescents: Is It a Curse or a Blessing?.
Taylor, L. D.	Bones, body parts, and sex appeal: An analysis of #thinspiration images on popular social media.

Literature Review - APA Publication Cite

Ganson, K. T., Testa, A., Rodgers, R. F., & Nagata, J. M. (2024). Use of photo filters is associated with muscle dysmorphia symptomatology among adolescents and young adults. Body Image, 50, 101750. https://doi.org/10.1016/j.bodyim.2024.101750

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Ghali, S., Afifi, S., Suryadevara, V., Habab, Y., Hutcheson, A., Panjiyar, B. K., Davydov, G. G., Nashat, H., & Nath, T. S. (2023). A Systematic Review of the Association of Internet Gaming Disorder and Excessive Social Media Use With Psychiatric Comorbidities in Children and Adolescents: Is It a Curse or a Blessing?. Cureus, 15(8), e43835. https://doi.org/10.7759/cureus.43835

Ghaznavi, J., & Taylor, L. D. (2015). Bones, body parts, and sex appeal: An analysis of #thinspiration images on popular social media. Body Image, 14, 54–61. https://doi.org/10.1016/j.bodyim.2015.03.006

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	Journal of the American	
2018	Academy of Child and Adolescent Psychiatry	Ginchura G S
2018	Adolescent r sychiatry	Ginsburg, G. S.
	Journal of Consulting and	
2011	Clinical Psychology	Ginsburg, G. S.
2019	Eating and Weight Disorders	Giovinazzo, S.
2017	Eating and Weight Disorders	Olovinuzzo, o.
2022	Children	Gkiouleka, M.
	Child and Adalassant	
	Child and Adolescent Psychiatric Clinics of North	
2022	America	Glover, J.
2022	American Journal of	
2022	Preventative Medicine	Goodwin, R. D.
2018	Body Image	Griffiths, S.

Literature Review - Other Authors	Literature Review - Article NameTitle
Becker-Haimes, E. M., Keeton, C., Kendall, P. C., Iyengar, S., Sakolsky, D., Albano, A. M.,	Results From the Child/Adolescent Anxiety
Peris, T., Compton, S. N., & Piacentini, J.	Multimodal Extended Long-Term Study (CAMELS): Primary Anxiety Outcomes.
Kendall, P. C., Sakolsky, D., Compton, S. N., Piacentini, J., Albano, A. M., Walkup, J. T., Sherrill, J., Coffey, K. A., Rynn, M. A., Keeton, C. P., McCracken, J. T., Bergman, L., Iyengar, S., Birmaher, B., & March, J.	Remission after acute treatment in children and adolescents with anxiety disorders: findings from the CAMS.
Sukkar, S. G., Rosa, G. M., Zappi, A., Bezante, G. P., Balbi, M., & Brunelli, C.	Anorexia nervosa and heart disease: a systematic review.
Stavraki, C., Sergentanis, T. N., & Vassilakou, T.	Orthorexia Nervosa in Adolescents and Young Adults: A Literature Review.
Ariefdjohan, M., & Fritsch, S. L.	#KidsAnxiety and the Digital World.
Dierker, L. C., Wu, M., Galea, S., Hoven, C. W., & Weinberger, A. H.	Trends in U.S. Depression Prevalence from 2015 to 2020: The Widening Treatment Gap.
Castle, D., Cunningham, M., Murray, S. B., Bastian, B., &	How does exposure to thinspiration and fitspiration relate to symptom severity among individuals with
Barlow, F. K.	eating disorders? Evaluation of a proposed model.

Literature Review - APA Publication Cite

Ginsburg, G. S., Becker-Haimes, E. M., Keeton, C., Kendall, P. C., Iyengar, S., Sakolsky, D., Albano, A. M., Peris, T., Compton, S. N., & Piacentini, J. (2018). Results From the Child/Adolescent Anxiety Multimodal Extended Long-Term Study (CAMELS): Primary Anxiety Outcomes. Journal of the American Academy of Child and Adolescent Psychiatry, 57(7), 471–480. https://doi.org/10.1016/j.jaac.2018.03.017

Ginsburg, G. S., Kendall, P. C., Sakolsky, D., Compton, S. N., Piacentini, J., Albano, A. M., Walkup, J. T., Sherrill, J., Coffey, K. A., Rynn, M. A., Keeton, C. P., McCracken, J. T., Bergman, L., Iyengar, S., Birmaher, B., & March, J. (2011). Remission after acute treatment in children and adolescents with anxiety disorders: findings from the CAMS. Journal of Consulting and Clinical Psychology, 79(6), 806–813. https://doi.org/10.1037/a0025933

Giovinazzo, S., Sukkar, S. G., Rosa, G. M., Zappi, A., Bezante, G. P., Balbi, M., & Brunelli, C. (2019). Anorexia nervosa and heart disease: a systematic review. Eating and Weight Disorders, 24(2), 199–207. https://doi.org/10.1007/s40519-018-0567-1

Gkiouleka, M., Stavraki, C., Sergentanis, T. N., & Vassilakou, T. (2022). Orthorexia Nervosa in Adolescents and Young Adults: A Literature Review. Children (Basel, Switzerland), 9(3), 365. https://doi.org/10.3390/children9030365

Glover, J., Ariefdjohan, M., & Fritsch, S. L. (2022). #KidsAnxiety and the Digital World. Child and Adolescent Psychiatric Clinics of North America, 31(1), 71–90.

https://doi.org/10.1016/j.chc.2021.06.004

Goodwin, R. D., Dierker, L. C., Wu, M., Galea, S., Hoven, C. W., & Weinberger, A. H. (2022) Trends in U.S. Depression Prevalence from 2015 to 2020: The Widening Treatment Gap. American Journal of Preventive Medicine, 63, 726-733.

Griffiths, S., Castle, D., Cunningham, M., Murray, S. B., Bastian, B., & Barlow, F. K. (2018). How does exposure to thinspiration and fitspiration relate to symptom severity among individuals with eating disorders? Evaluation of a proposed model. Body Image, 27, 187–195. https://doi.org/10.1016/j.bodyim.2018.10.002

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2024	Body Image	Griffiths, S.
2018	Cyberpsychology, Behavior and Social Networking	Griffiths, S.
2022	BMC Psychology	Gugushvili, N.,
2023	Frontiers in Pscyhology	Gupta, M.
2023	Body Image	Gurtala, J. C.
1979	Psychiatry Research	Halmi, K. A.
2022	Journal of Eating Disorders	Hambleton, A

Literature Review - Other Authors	Literature Review - Article NameTitle
Harris, E. A., Whitehead, G., Angelopoulos, F., Stone, B.,	Does TikTok contribute to eating disorders? A comparison of the TikTok algorithms belonging to individuals with eating disorders versus healthy
Grey, W., & Dennis, S.	controls.
Murray, S. B., Krug, I., & McLean, S. A.	The Contribution of Social Media to Body Dissatisfaction, Eating Disorder Symptoms, and Anabolic Steroid Use Among Sexual Minority Men.
Täht, K., Ruiter, R. A. C., & Verduyn, P.	Facebook use intensity and depressive symptoms: a moderated mediation model of problematic Facebook use, age, neuroticism, and extraversion.
Jassi, A., & Krebs, G.	The association between social media use and body dysmorphic symptoms in young people.
Fardouly, J.	Does medium matter? Investigating the impact of viewing ideal image or short-form video content on young women's body image, mood, and self-objectification.
Casper, R. C., Eckert, E. D., Goldberg, S. C., & Davis, J. M.	Unique features associated with age of onset of anorexia nervosa.
	Psychiatric and medical comorbidities of eating
Pepin, G., Le, A., Maloney, D.	disorders findings from a rapid review of the literature.

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Griffiths, S., Harris, E. A., Whitehead, G., Angelopoulos, F., Stone, B., Grey, W., & Dennis, S. (2024). Does TikTok contribute to eating disorders? A comparison of the TikTok algorithms belonging to individuals with eating disorders versus healthy controls. Body Image, 51, 101807.

https://doi.org/10.1016/j.bodyim.2024.101807

Griffiths, S., Murray, S. B., Krug, I., & McLean, S. A. (2018). The Contribution of Social Media to Body Dissatisfaction, Eating Disorder Symptoms, and Anabolic Steroid Use Among Sexual Minority Men. Cyberpsychology, Behavior and Social Networking, 21(3), 149–156.

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Gupta, M., Jassi, A., & Krebs, G. (2023). The association between social media use and body dysmorphic symptoms in young people. Frontiers in Psychology, 14, 1231801.

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10.1016/j.bodyim.2023.06.005

Halmi, K. A., Casper, R. C., Eckert, E. D., Goldberg, S. C., & Davis, J. M. (1979). Unique features associated with age of onset of anorexia nervosa. Psychiatry Research, 1(2), 209–215. https://doi.org/10.1016/0165-1781(79)90063-5

Hambleton, A., Pepin, G., Le, A., Maloney, D., National Eating Disorder Research Consortium, Touyz, S., & Maguire, S. (2022). Psychiatric and medical comorbidities of eating disorders findings from a rapid review of the literature. Journal of Eating Disorders, 10(1), 132. https://doi.org10.1186s40337-022-00654-2

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2021	JMIR Mental Health	Hamilton, J. L.
2020	Journal of Adolescence	Hamilton, J. L.
2022	Department of Communication Stanford Universit	Hancock, J.
2022	Body Image	Harriger, J. A.
		6. 7
2015	Current Opinion in Behavioral Sciences	Hartley, C.A.
2022	JAMA Pediatrics	Hartman-Munick, S. M.

Literature Review - Other Authors	Literature Review - Article NameTitle
Lee, W.	Associations Between Social Media, Bedtime Technology Use Rules, and Daytime Sleepiness Among Adolescents: Cross-sectional Findings From a Nationally Representative Sample.
Chand, S., Reinhardt, L., Ladouceur, C. D., Silk, J. S., Moreno, M., Franzen, P. L., & Bylsma, L. M.	Social media use predicts later sleep timing and greater sleep variability: An ecological momentary assessment study of youth at high and low familial risk for depression.
Liu, S. X., Luo, M., & Mieczkowski, H.	Psychological Well-Being and Social Media Use: A Meta-Analysis of Associations between Social Media Use and Depression, Anxiety, Loneliness, Eudaimonic, Hedonic and Social Well-Being.
Evans, J. A., Thompson, J. K., & Tylka, T. L.	The dangers of the rabbit hole: Reflections on social media as a portal into a distorted world of edited bodies and eating disorder risk and the role of algorithms.
Somerville, L.H.	The neuroscience of adolescent decision-making.
Lin, J. A., Milliren, C. E., Braverman, P. K., Brigham, K. S., Fisher, M. M., Golden, N. H., Jary, J. M., Lemly, D. C., Matthews, A., Ornstein, R. M., Roche, A., Rome, E. S., Rosen, E. L., Sharma, Y., Shook, J. K., Taylor, J. L., Thew, M., Vo, M., Voss, M., Richmond, T. K.	Association of the COVID-19 Pandemic With Adolescent and Young Adult Eating Disorder Care Volume.

Literature Review - APA Publication Cite

Hamilton, J. L., & Lee, W. (2021). Associations Between Social Media, Bedtime Technology Use Rules, and Daytime Sleepiness Among Adolescents: Cross-sectional Findings From a Nationally Representative Sample. JMIR Mental Health, 8(9), e26273. https://doi.org/10.2196/26273

Hamilton, J. L., Chand, S., Reinhardt, L., Ladouceur, C. D., Silk, J. S., Moreno, M., Franzen, P. L., & Bylsma, L. M. (2020). Social media use predicts later sleep timing and greater sleep variability: An ecological momentary assessment study of youth at high and low familial risk for depression. Journal of Adolescence, 83, 122–130. https://doi.org/10.1016/j.adolescence.2020.07.009

Hancock, J., Liu, S. X., Luo, M., & Mieczkowski, H. (2022). Psychological Well-Being and Social Media Use: A Meta-Analysis of Associations between Social Media Use and Depression, Anxiety, Loneliness, Eudaimonic, Hedonic and Social Well-Being. Department of Communication Stanford University, SSRN: https://ssrn.com/abstract=4053961

Harriger, J. A., Evans, J. A., Thompson, J. K., & Tylka, T. L. (2022). The dangers of the rabbit hole: Reflections on social media as a portal into a distorted world of edited bodies and eating disorder risk and the role of algorithms. Body Image, 41, 292–297. https://doi.org/10.1016/j.bodyim.2022.03.007

Hartley, C. A., & Somerville, L. H. (2015). The neuroscience of adolescent decision-making. Current Opinion in Behavioral Sciences, 5, 108–115.

https://doi.org/10.1016/j.cobeha.2015.09.004

Hartman-Munick, S. M., Lin, J. A., Milliren, C. E., Braverman, P. K., Brigham, K. S., Fisher, M. M., Golden, N. H., Jary, J. M., Lemly, D. C., Matthews, A., Ornstein, R. M., Roche, A., Rome, E. S., Rosen, E. L., Sharma, Y., Shook, J. K., Taylor, J. L., Thew, M., Vo, M., Voss, M., ... Richmond, T. K. (2022). Association of the COVID-19 Pandemic With Adolescent and Young Adult Eating Disorder Care Volume. JAMA Pediatrics, 176(12), 1225–1232. https://doi.org/10.1001/jamapediatrics.2022.4346

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2021	National Center for Health Statistics, National Vital Statistics System	Heron, M.
2021	Statistics System	1101011, 141.
2021	The International Journal of Eating Disorders	Herrick, S. S. C.
2003	The International Journal of Eating Disorders	Hoek, H. W.
2016	Body Image	Holland, G.
2017	The International Journal of Eating Disorders	Holland, G.
	-	
2022	Computers in Human Behavior	Hristova, D.
2017	Cyberpsychology, Behavior, and Social Networking	Huang, C.
2007	Biological Psychiatry	Hudson, J. I.
2007	22010810011 1 5 1 0111011 1	
2018	Journal of Social and Clinical Psychology	Hunt, M. G.

Literature Review - Other Authors	Literature Review - Article NameTitle
N/A	Deaths: Leading Causes for 2018. National vital statistics reports: from the Centers for Disease Control and Prevention.
Hallward, L., & Duncan, L. R.	"This is just how I cope": An inductive thematic analysis of eating disorder recovery content created and shared on TikTok using #EDrecovery.
van Hoeken, D.	Review of the prevalence and incidence of eating disorders.
Tiggemann, M.	A systematic review of the impact of the use of social networking sites on Body Image and disordered eating outcomes.
Tiggemann, M.	"Strong beats skinny every time": Disordered eating and compulsive exercise in women who post fitspiration on Instagram.
Jovicic, S., Göbl, B., de Freitas, S., & Slunecko, T.	"Why did we lose our snapchat streak?". Social media gamification and metacommunication.
N/A	Time Spent on Social Network Sites and Psychological Well-Being: A Meta-Analysis.
Hiripi, E., Pope, H. G., Jr, & Kessler, R. C.	The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication.
Marx, R., Lipson, C. & Young, J.	No More FOMO: Limiting Social Media Decreases Loneliness and Depression.

Literature Review - APA Publication Cite

Heron, M. (2021). Deaths: Leading Causes for 2018. National vital statistics reports: from the Centers for Disease Control and Prevention. National Center for Health Statistics, National Vital Statistics System. 70, 1-115. 10.15620/cdc:104186.

Herrick, S. S. C., Hallward, L., & Duncan, L. R. (2021). "This is just how I cope": An inductive thematic analysis of eating disorder recovery content created and shared on TikTok using #EDrecovery. The International Journal of Eating Disorders, 54(4), 516–526. https://doi.org/10.1002/eat.23463

Hoek, H. W., & van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. The International Journal of Eating Disorders, 34(4), 383–396. https://doi.org/10.1002/eat.10222

Holland, G., & Tiggemann, M. (2016). A systematic review of the impact of the use of social networking sites on Body Image and disordered eating outcomes. Body Image, 17, 100–110. https://doi.org/10.1016/j.bodyim.2016.02.008

Holland, G., & Tiggemann, M. (2017). "Strong beats skinny every time": Disordered eating and compulsive exercise in women who post fitspiration on Instagram. The International Journal of Eating Disorders, 50(1), 76–79. https://doi.org/10.1002/eat.22559

Hristova, D., Jovicic, S., Göbl, B., de Freitas, S., & Slunecko, T. (2022). "Why did we lose our snapchat streak?". Social media gamification and metacommunication. Computers in Human Behavior Reports, 5,100172.

Huang, C. (2017). Time Spent on Social Network Sites and Psychological Well-Being: A Meta-Analysis. Cyberpsychology, Behavior, and Social Networking, 20(6), 346-354.

Hudson, J. I., Hiripi, E., Pope, H. G., Jr, & Kessler, R. C. (2007). The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. Biological Psychiatry, 61(3), 348–358. https://doi.org/10.1016/j.biopsych.2006.03.040

Hunt, M. G., Marx, R., Lipson, C. & Young, J. (2018). No More FOMO: Limiting Social Media Decreases Loneliness and Depression. Journal of Social and Clinical Psychology, 37(10), 751-768.

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2014	Indian Heart Journal	Israel, C.W.
2020	Journal of Affective Disorders	Ivie, E. J.
2023	The International Journal of Eating Disorders	J Devoe, D.
2010	Oxford University Press	Jacobi, C.
2023	Middle East Current Psychiatry	Javaid, S. F.
2022	Eating and Weight Disorders	Jerónimo, F.
2015	The Psychiatric Quarterly	Johansson, O.
2018	Journal of Medical Internet research	John, A.
2010	Eating Disorders	Juarascio, A. S.

Literature Review - Other Authors	Literature Review - Article NameTitle
N/A	Mechanisms of sudden cardiac death.
Pettitt, A., Moses, L. J., & Allen, N. B.	A meta-analysis of the association between adolescent social media use and depressive symptoms.
Han, A., Anderson, A., Katzman, D. K., Patten, S. B., Soumbasis, A., Flanagan, J., Paslakis, G., Vyver, E., Marcoux, G., & Dimitropoulos, G.	The impact of the COVID-19 pandemic on eating disorders: A systematic review.
Fittig, E.	Psychosocial risk factors for eating disorders.
Hashim, I. J., Hashim, M. J., Stip, E., Samad, M. A., & Ahbabi, A	Epidemiology of anxiety disorders: global burden and sociodemographic associations.
Carraça, E. V.	Effects of fitspiration content on body image: a systematic review.
Lundh, L. G., & Bjärehed, J.	12-Month Outcome and Predictors of Recurrence in Psychiatric Treatment of Depression: A Retrospective Study.
Glendenning, A. C., Marchant, A., Montgomery, P., Stewart, A., Wood, S., Lloyd, K., & Hawton, K.	Self-Harm, Suicidal Behaviours, and Cyberbullying in Children and Young People: Systematic Review.
Shoaib, A., & Timko, C. A.	Pro-eating disorder communities on social networking sites: a content analysis.

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Israel, C. W. (2014). Mechanisms of sudden cardiac death. Indian Heart Journal, 66 Suppl 1(Suppl 1), S10–S17. https://doi.org/10.1016/j.ihj.2014.01.005

Ivie, E. J., Pettitt, A., Moses, L. J., & Allen, N. B. (2020). A metaanalysis of the association between adolescent social media use and depressive symptoms. Journal of Affective Disorders, 275, 165-174.

J Devoe, D., Han, A., Anderson, A., Katzman, D. K., Patten, S. B., Soumbasis, A., Flanagan, J., Paslakis, G., Vyver, E., Marcoux, G., & Dimitropoulos, G. (2023). The impact of the COVID-19 pandemic on eating disorders: A systematic review. The International Journal of Eating Disorders, 56(1), 5–25. https://doi.org/10.1002/eat.23704

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Jerónimo, F., & Carraça, E. V. (2022). Effects of fitspiration content on body image: a systematic review. Eating and Weight Disorders, 27(8), 3017–3035. https://doi.org/10.1007/s40519-022-01505-4

Johansson, O., Lundh, L. G., & Bjärehed, J. (2015). 12-Month Outcome and Predictors of Recurrence in Psychiatric Treatment of Depression: A Retrospective Study. The Psychiatric Quarterly, 86(3), 407–417. https://doi.org/10.1007/s11126-015-9341-y

John, A., Glendenning, A. C., Marchant, A., Montgomery, P., Stewart, A., Wood, S., Lloyd, K., & Hawton, K. (2018). Self-Harm, Suicidal Behaviours, and Cyberbullying in Children and Young People: Systematic Review. Journal of Medical Internet research, 20(4), e129. https://doi.org/10.2196/jmir.9044

Juarascio, A. S., Shoaib, A., & Timko, C. A. (2010). Pro-eating disorder communities on social networking sites: a content analysis. Eating Disorders, 18(5), 393–407. https://doi.org/10.1080/10640266.2010.511918

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2023	Cureus	Kanchan, S.
2023	Curcus	Kanenan, S.
2022	Frantiars in Dayshalagy	Vorokoga T
2023	Frontiers in Psychology	Karakose, T.
2020	Cureus	Karim, F.
1996	The Journal of Pediatrics	Katzman, D. K.
	The International Journal of	
2020	Eating Disorders	Kaufmann, L. K.
	The American Journal of	
2004	Psychiatry	Kaye, W. H.
2003	Archives of General Psychiatry	Keel, P. K.
2003	The state of General 1 by emaily	
2005	The American Journal of	Voct D V
2005	Psychiatry	Keel, P. K.

Literature Review - Other Authors	Literature Review - Article NameTitle
Gaidhane, A.	Social Media Role and Its Impact on Public Health: A Narrative Review.
Yıldırım, B., Tülübaş, T., & Kardas, A.	A comprehensive review on emerging trends in the dynamic evolution of digital addiction and depression.
Oyewande, A. A., Abdalla, L. F., Chaudhry Ehsanullah, R., & Khan, S.	Social Media Use and Its Connection to Mental Health: A Systematic Review.
Lambe, E. K., Mikulis, D. J., Ridgley, J. N., Goldbloom, D. S., & Zipursky, R. B.	Cerebral gray matter and white matter volume deficits in adolescent girls with anorexia nervosa.
Hänggi, J., Jäncke, L., Baur, V., Piccirelli, M., Kollias, S., Schnyder, U., Martin-Soelch, C., & Milos, G.	Age influences structural brain restoration during weight gain therapy in anorexia nervosa.
Bulik, C. M., Thornton, L., Barbarich, N., & Masters, K	Comorbidity of anxiety disorders with anorexia and bulimia nervosa.
Dorer, D. J., Eddy, K. T., Franko, D., Charatan, D. L., & Herzog, D. B.	Predictors of mortality in eating disorders.
Dorer, D. J., Franko, D. L., Jackson, S. C., & Herzog, D. B. (2005).	Postremission predictors of relapse in women with eating disorders.

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Kaye, W. H., Bulik, C. M., Thornton, L., Barbarich, N., & Masters, K. (2004). Comorbidity of anxiety disorders with anorexia and bulimia nervosa. The American Journal of Psychiatry, 161(12), 2215–2221.

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Year	Enclatule Review - Southan	Literature Review - Lead Matrior
2006	Psychological Medicine	Keel, P. K.
	International Journal of	
2020	Adolescence and Youth	Keles, B.
2010	DOI: ' IM I' '	77 11 37
2019	EClinical Medicine	Kelly, Y.
2014	Comprehensive Psychiatry	Keshaviah, A.
	Journal of Child Psychology	
	and Psychiatry, and Allied	
2023	Disciplines	Keyes, K. M.
2023	Cureus	Khalaf, A. M.
2023	Curcus	111111111111111111111111111111111111111
2022	Public Health Nursing	Kim, B.R.
2015	Biological Psychiatry	King, J. A.

Literature Review - Other Authors	Literature Review - Article NameTitle
Heatherton, T. F., Dorer, D. J., Joiner, T. E., & Zalta, A. K.	Point prevalence of bulimia nervosa in 1982, 1992, and 2002.
McCrae, N., & Grealish, A.	A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents.
Zilanawala, A., Booker, C., & Sacker, A.	Social Media Use and Adolescent Mental Health: Findings From the UK Millennium Cohort Study.
Edkins, K., Hastings, E. R., Krishna, M., Franko, D. L., Herzog, D. B., Thomas, J. J., Murray, H. B., & Eddy, K. T.	Re-examining premature mortality in anorexia nervosa: a meta-analysis redux. Comprehensive Psychiatry.
Platt, J. M.	Annual Research Review: Sex, gender, and internalizing conditions among adolescents in the 21st century - trends, causes, consequences.
Alubied, A. A., Khalaf, A. M., & Rifaey, A. A.	The Impact of Social Media on the Mental Health of Adolescents and Young Adults: A Systematic Review.
Mackert, M.	Social media use and binge eating: An integrative review.
Geisler, D., Ritschel, F., Boehm, I., Seidel, M., Roschinski, B., Soltwedel, L., Zwipp, J., Pfuhl, G., Marxen, M., Roessner, V., & Ehrlich, S.	Global cortical thinning in acute anorexia nervosa normalizes following long-term weight restoration.

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Kelly, Y., Zilanawala, A., Booker, C., & Sacker, A. (2019). Social Media Use and Adolescent Mental Health: Findings From the UK Millennium Cohort Study. EClinicalMedicine, 6, 59–68.

Keshaviah, A., Edkins, K., Hastings, E. R., Krishna, M., Franko, D. L., Herzog, D. B., Thomas, J. J., Murray, H. B., & Eddy, K. T. (2014). Re-examining premature mortality in anorexia nervosa: a meta-analysis redux. Comprehensive psychiatry, 55(8), 1773–1784. https://doi.org/10.1016/j.comppsych.2014.07.017

Keyes, K. M., & Platt, J. M. (2023). Annual Research Review: Sex, gender, and internalizing conditions among adolescents in the 21st century - trends, causes, consequences. Journal of Child Psychology and Psychiatry, and Allied Disciplines, 65(4), 384–407. https://doi.org/10.1111/jcpp.13864

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Kim, B. R., & Mackert, M. (2022). Social media use and binge eating: An integrative review. Public Health Nursing (Boston, Mass.), 39(5), 1134–1141. https://doi.org/10.1111/phn.13069

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Literature		
Review -	Literature Review - Journal	Literature Review - Lead Author
Year	Enteractare Neview Southan	Electuture Review Elect Mutitor
2016	Media Psychology	Kleemans, M.
2018	Journal of Anxiety Disorders	Kodal, A.
2010	Journal of Functy Disorders	ixodui, 7x.
2016	First Monday	Kofoed, J.
2016	Lancet Psychiatry	Koob, G.F.
2010	Frontiers in Behavioral Neuroscience	Vrach C
2010	Neuroscience	Krach, S.
	Proceedings of the National	
	Academy of Sciences of the	
2014	United States of America	Kramer, A. D.
		_
2015	Communications of the ACM	Kraut, R.
2008	Health Education Research	Kraver. A.
	Health Education Research	Krayer, A.

Literature Review - Other Authors	Literature Review - Article NameTitle
Daalmans, S., Carbaat, I., & Anschütz, D.	Picture Perfect: The Direct Effect of Manipulated Instagram Photos on Body Image in Adolescent Girls.
Fjermestad, K., Bjelland, I.,	
Gjestad, R., Öst, L. G., Bjaastad, J. F., Haugland, B. S. M., Havik,	
O. E., Heiervang, E., & Wergeland, G. J.	Long-term effectiveness of cognitive behavioral therapy for youth with anxiety disorders.
Larsen, M.D.	A snap of intimacy: Photo-sharing practices among young people on social media.
Earson, W.D.	joung people on social media.
Volkow, N.D.	Neurobiology of addiction: a neurocircuitry analysis
Paulus, F. M., Bodden, M., & Kircher, T.	The rewarding nature of social interactions.
Guillory, J. E., & Hancock, J. T.	Experimental evidence of massive-scale emotional contagion through social networks.
	The connection between online communication and psychological well-being depends on whom you are communicating with. Internet use and psychological well-being: Effects of activity and
Burke, M.	audience.
Ingledew, D. K., & Iphofen, R.	Social comparison and body image in adolescence: a grounded theory approach.

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Kodal, A., Fjermestad, K., Bjelland, I., Gjestad, R., Öst, L. G., Bjaastad, J. F., Haugland, B. S. M., Havik, O. E., Heiervang, E., & Wergeland, G. J. (2018). Long-term effectiveness of cognitive behavioral therapy for youth with anxiety disorders. Journal of Anxiety Disorders, 53, 58–67.

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Krach, S., Paulus, F. M., Bodden, M., & Kircher, T. (2010). The rewarding nature of social interactions. Frontiers in Behavioral Neuroscience, 4, 22. https://doi.org/10.3389/fnbeh.2010.00022

Kramer, A. D., Guillory, J. E., & Hancock, J. T. (2014). Experimental evidence of massive-scale emotional contagion through social networks. Proceedings of the National Academy of Sciences of the United States of America, 111(24), 8788–8790. https://doi.org/10.1073/pnas.1320040111

Kraut, R., & Burke, M. (2015). The connection between online communication and psychological well-being depends on whom you are communicating with. Internet use and psychological well-being: Effects of activity and audience. Communications of the ACM, 58(12).

Krayer, A., Ingledew, D. K., & Iphofen, R. (2008). Social comparison and body image in adolescence: a grounded theory approach. Health Education Research, 23(5), 892–903. https://doi.org/10.1093/her/cym076

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2025	Journal of the American Academy of Child and Adolescent Psychiatry	Krebs, G.
2023	Adolescent I sychiatry	Mcos, G.
2017	Behavior Therapy	Krebs, G.
2021	Trends in Cognitive Sciences	Kross, E.
	Social Science Research	Kunz, P.
2011	International Journal of Environmental Research and	W D I
2011	Public Health	Kuss, D. J.
2021	Computers in Human Behavior	Kuss, D. J.
1997	Archives of General Psychiatry	Lambe, E. K.
2019	Journal of Developmental and Behavioral Pediatrics	Lane, R.

Literature Review - Other Authors	Literature Review - Article NameTitle
Clark, B. R., Ford, T. J., & Stringaris, A.	Epidemiology of Body Dysmorphic Disorder and Appearance Preoccupation in Youth: Prevalence, Comorbidity and Psychosocial Impairment.
Fernández de la Cruz, L., Monzani, B., Bowyer, L., Anson, M., Cadman, J., Heyman, I., Turner, C., Veale, D., & Mataix- Cols, D.	Long-Term Outcomes of Cognitive-Behavioral Therapy for Adolescent Body Dysmorphic Disorder.
Verduyn, P., Sheppes, G., Costello, C. K., Jonides, J., & Ybarra, O.	Social Media and Well-Being: Pitfalls, Progress, and Next Steps.
Woolcott, M.	Season's Greetings: From My Status to Yours.
Griffiths, M. D.	Online social networking and addictiona review of the psychological literature.
Kristensen, A. M., Lopez-Fernandez, O.	Internet addictions outside of Europe: A systematic literature review.
Katzman, D. K., Mikulis, D. J., Kennedy, S. H., & Zipursky, R. B.	Cerebral gray matter volume deficits after weight recovery from anorexia nervosa.
Radesky, J.	Digital Media and Autism Spectrum Disorders: Review of Evidence, Theoretical Concerns, and Opportunities for Intervention.

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Kuss, D. J., & Griffiths, M. D. (2011). Online social networking and addiction--a review of the psychological literature. International Journal of Environmental Research and Public Health, 8(9), 3528–3552.

Kuss, D. J., Kristensen, A. M., Lopez-Fernandez, O. (2021). Internet addictions outside of Europe: A systematic literature review. Computers in Human Behavior, 115. https://doi.org/10.1016/j.chb.2020.106621

Lambe, E. K., Katzman, D. K., Mikulis, D. J., Kennedy, S. H., & Zipursky, R. B. (1997). Cerebral gray matter volume deficits after weight recovery from anorexia nervosa. Archives of General Psychiatry, 54(6), 537–542.

https://doi.org/10.1001/archpsyc.1997.01830180055006

Lane, R., & Radesky, J. (2019). Digital Media and Autism Spectrum Disorders: Review of Evidence, Theoretical Concerns, and Opportunities for Intervention. Journal of Developmental and Behavioral Pediatrics, 40(5), 364–368.

https://doi.org/10.1097/DBP.0000000000000664

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2025	Research on Child and Adolescent Psychopathology	Lavell, C.H.
2020	Current Psychology	Lee, J.K.
2016	Preventive Medicine	Levenson, J. C.
2014	JAMA Pediatrics	Lewis, S. P.
2017	Journal of Behavioral Addictions	Li, J. B.
2010		I. D
2018	Telematics and Informatics	Li, P.
2020	BMC Psychiatry	Li, X.

Literature Review - Other Authors	Literature Review - Article NameTitle
Oar, E. L., & Rapee, R. M.	Peer Relationships and Social Media Use in Adolescents with Body Dysmorphic Disorder.
N/A	The effects of social comparison orientation on psychological well-being in social networking sites: Serial mediation of perceived social support and self-esteem.
TV/II	
Shensa, A., Sidani, J. E., Colditz, J. B., & Primack, B. A.	The association between social media use and sleep disturbance among young adults.
Mahdy, J. C., Michal, N. J., & Arbuthnott, A. E.	Googling Self-injury: the state of health information obtained through online searches for self-injury.
Lau, J. T. F., Mo, P. K. H., Su, X. F., Tang, J., Qin, Z. G., & Gross, D. L.	Insomnia partially mediated the association between problematic Internet use and depression among secondary school students in China.
Chang, L., Chua, T. H. H., & Loh, R. S. M.	"Likes" as KPI: An examination of teenage girls' perspective on peer feedback on Instagram and its influence on coping response.
Liu, X., Wang, Y., Li, L., Zheng, L., Liu, Y., Ma, J., & Zhang, L.	Altered regional gray matter volume in Chinese female patients with bulimia nervosa.

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- Lavell, C. H., Oar, E. L., & Rapee, R. M. (2025). Peer Relationships and Social Media Use in Adolescents with Body Dysmorphic Disorder. Research on Child and Adolescent Psychopathology, 53(1), 43–55. https://doi.org/10.1007/s10802-024-01245-2
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- Li, X., Liu, X., Wang, Y., Li, L., Zheng, L., Liu, Y., Ma, J., & Zhang, L. (2020). Altered regional gray matter volume in Chinese female patients with bulimia nervosa. BMC Psychiatry, 20(1), 94. https://doi.org/10.1186/s12888-020-02493-4

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Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2016	Depression and Anxiety	Lin, L. Y.
	•	
2017	Journal of Consulting and	I in and an I
2017	Clinical Psychology	Linardon, J.
2016	Review of General Psychology	Liu, D.
	Emerging Trends in Drugs,	
2024		Liu, D.
2006		I. V
2006	Current Opinion in Psychiatry	Liu, X.
2018	Journal of Children and Media	Livingston, S.
	Journal of Child Psychology	
	and Psychiatry, and Allied	
2014	Disciplines	Livingston, S.
2008	Neuropsychobiology	Lo Sauro, C.

Literature Review - Other Authors	Literature Review - Article NameTitle
Sidani, J. E., Shensa, A., Radovic, A., Miller, E., Colditz, J. B., Hoffman, B. L., Giles, L. M., & Primack, B. A.	ASSOCIATION BETWEEN SOCIAL MEDIA USE AND DEPRESSION AMONG U.S. YOUNG ADULTS.
Wade, T. D., de la Piedad Garcia, X., & Brennan, L.	The efficacy of cognitive-behavioral therapy for eating disorders: A systematic review and meta-analysis.
Ainsworth, S. E., & Baumeister, R. F.	A meta-analysis of social networking online and social capital.
Baumeister, R. F., & Yang, CC.	A meta-analysis on the relationship between the use of electronic media and psychological well-being.
Buysse, D. J.	Sleep and youth suicidal behavior: a neglected field.
N/A	iGen: why today's super-connected kids are growing up less rebellious, more tolerant, less happy – and completely unprepared for adulthood.
Smith, P.K.	Annual research review: Harms experienced by child users of online and mobile technologies: the nature, prevalence and management of sexual and aggressive risks in the digital age.
Ravaldi, C., Cabras, P. L., Faravelli, C., & Ricca, V.	Stress, hypothalamic-pituitary-adrenal axis and eating disorders.

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Lin, L. Y., Sidani, J. E., Shensa, A., Radovic, A., Miller, E., Colditz, J. B., Hoffman, B. L., Giles, L. M., & Primack, B. A. (2016). ASSOCIATION BETWEEN SOCIAL MEDIA USE AND DEPRESSION AMONG U.S. YOUNG ADULTS. Depression and anxiety, 33(4), 323–331. https://doi.org/10.1002/da.22466

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Livingstone, S. (2018). iGen: why today's super-connected kids are growing up less rebellious, more tolerant, less happy – and completely unprepared for adulthood. Journal of Children and Media, 12(1), 118–123.

https://doi.org/10.1080/17482798.2017.1417091

Livingstone, S., & Smith, P. K. (2014). Annual research review: Harms experienced by child users of online and mobile technologies: the nature, prevalence and management of sexual and aggressive risks in the digital age. Journal of Child Psychology and Psychiatry, and Allied Disciplines, 55(6), 635–654. https://doi.org/10.1111/jcpp.12197

Lo Sauro, C., Ravaldi, C., Cabras, P. L., Faravelli, C., & Ricca, V. (2008). Stress, hypothalamic-pituitary-adrenal axis and eating disorders. Neuropsychobiology, 57(3), 95–115. https://doi.org/10.1159/000138912

Literature	
Review - Literature Review - Journal Literature Review - Lead Au	thor
Year	101101
2020 Pediatrics Lo, C. B.	
The International Journal of	
2020 Eating Disorders Lonergan, A. R.	
2022 IAMA Naturally On an	
2023 JAMA Network Open Lookingbill, V.	
European Eating Disorders	
2025 Review Lopes, M. P.	
2024 Global Business Review Lopez, E.	
2010 Madia Parahahara	
2010 Media Psychology López-Guimerà, G.	
Children and Youth Services	
2022 Review Lozano-Blasco, R.	

Literature Review - Other Authors	Literature Review - Article NameTitle
Bridge, J. A., Shi, J., Ludwig, L., & Stanley, R. M.	Children's Mental Health Emergency Department Visits: 2007-2016.
Bussey, K., Fardouly, J., Griffiths, S., Murray, S. B., Hay, P., Mond, J., Trompeter, N., & Mitchison, D.	Protect me from my selfie: Examining the association between photo-based social media behaviors and self-reported eating disorders in adolescence.
Mohammadi, E., & Cai, Y.	Assessment of Accuracy, User Engagement, and Themes of Eating Disorder Content in Social Media Short Videos.
Ahmed, S., Beaman, L., Stubbs, B., Campbell, I. C., Schmidt, U., & Robinson, L.	Bone Fracture History in Women With First Episode or With Persistent Anorexia Nervosa.
Flecha-Ortiz, J. A., Santos-Corrada, M., & Dones, V.	The Gratifications of Ephemeral Marketing Content, the Use of Snapchat by the Millennial Generation and Their Impact on Purchase Motivation.
Levine, M. P., Sánchez- Carracedo, D., & Fauquet, J.	Influence of mass media on body image and eating disordered attitudes and behaviors in females: A review of effects and processes.
Latorre-Martínez, M., & Cortés-Pascual, A.	Screen addicts: A meta-analysis of internet addiction in adolescence.

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Lopes, M. P., Ahmed, S., Beaman, L., Stubbs, B., Campbell, I. C., Schmidt, U., & Robinson, L. (2025). Bone Fracture History in Women With First Episode or With Persistent Anorexia Nervosa. European Eating Disorders Review: The Journal of the Eating Disorders Association, 33(3), 447–459. https://doi.org/10.1002/erv.3153

Lopez, E., Flecha-Ortiz, J. A., Santos-Corrada, M., & Dones, V. (2024). The Gratifications of Ephemeral Marketing Content, the Use of Snapchat by the Millennial Generation and Their Impact on Purchase Motivation. Global Business Review, 25(6), 1440-1451. https://doi.org/10.1177/09721509211005676

López-Guimerà, G., Levine, M. P., Sánchez-Carracedo, D., & Fauquet, J. (2010). Influence of mass media on body image and eating disordered attitudes and behaviors in females: A review of effects and processes. Media Psychology, 13(4), 387–416. https://doi.org/10.1080/15213269.2010.525737

Lozano-Blasco, R., Latorre-Martínez, M., & Cortés-Pascual, A. (2022). Screen addicts: A meta-analysis of internet addiction in adolescence. Children and Youth Services Review, 135, Article 106373. https://doi.org/10.1016/j.childyouth.2022.106373

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2021	Journal of Psychiatric Research	I vo T
2021	Research	Luo, T.
2021	Media, Culture & Society	Lupinacci, L.
		Yr www.y
	American Journal of Public	
2012	Health	Luxton, D. D.
	The International Journal of	
2024	Eating Disorders	Lyall, A. E.
2022	Association for Computing Machinery	Ma, J.
	z i z i z i z i z i z i z i z i z i z i	2.24, 0.
2022	Sleep Medicine Reviews	MacKenzie, M. D.
1836	Glasgow	Macnish, R.
2022	Journal of Children and Media	Maes, C.

Literature Review - Other Authors	Literature Review - Article NameTitle
Chen, W., & Liao, Y.	Social media use in China before and during COVID-19: Preliminary results from an online retrospective survey.
N/A	'Absentmindedly scrolling through nothing': liveness and compulsory continuous connectedness in social media.
June, J. D., & Fairall, J. M.	Social media and suicide: a public health perspective.
Breithaupt, L., Ji, C., Haidar, A., Kotler, E., Becker, K. R., Plessow, F., Slattery, M., Thomas, J. J., Holsen, L. M., Misra, M., Eddy, K. T., & Lawson, E. A.	Lower region-specific gray matter volume in females with atypical anorexia nervosa and anorexia nervosa.
N/A	A Meta-Analysis of Social Media Usage with Stress, Anxiety, and Depression. In Proceedings of the 2021 International Conference on Intelligent Medicine and Health (ICIMH '21).
Scott, H., Reid, K., & Gardani, M.	Adolescent perspectives of bedtime social media use: A qualitative systematic review and thematic synthesis.
N/A	The philosophy of sleep. 3rd ed. Glasgow: W.R. M'Phun.
de Lenne, O.	Filters and fillers: Belgian adolescents' filter use on social media and the acceptance of cosmetic surgery.

Literature Review - APA Publication Cite

Luo, T., Chen, W., & Liao, Y. (2021). Social media use in China before and during COVID-19: Preliminary results from an online retrospective survey. Journal of Psychiatric Research, 140, 35–38. https://doi.org/10.1016/j.jpsychires.2021.05.057

Lupinacci, L. (2021). 'Absentmindedly scrolling through nothing': liveness and compulsory continuous connectedness in social media. Media, Culture & Society, 43(2), 273-290. https://doi.org/10.1177/0163443720939454

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Ma, J. (2022). A Meta-Analysis of Social Media Usage with Stress, Anxiety, and Depression. In Proceedings of the 2021 International Conference on Intelligent Medicine and Health (ICIMH '21). Association for Computing Machinery, 125–129. https://doi.org/10.1145/3484377.3487041

MacKenzie, M. D., Scott, H., Reid, K., & Gardani, M. (2022). Adolescent perspectives of bedtime social media use: A qualitative systematic review and thematic synthesis. Sleep Medicine Reviews, 63, 101626.

https://doi.org/10.1016/j.smrv.2022.101626

Macnish, R. (1836). The philosophy of sleep. 3rd ed. Glasgow: W.R. M'Phun. https://wellcomecollection.org/works/rmw6q923

Maes, C., & de Lenne, O. (2022). Filters and fillers: Belgian adolescents' filter use on social media and the acceptance of cosmetic surgery. Journal of Children and Media, 16(4), 587–605. https://doi.org/10.1080/17482798.2022.2079696

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year	Entertail enterior goarman	Zitorature iteriew Zeug rigenor
2022		
2022	Journal of Adolescence	Maheux, A. J.
2022	Journal of Adolescence	Maksniemi, E.
2022	Journal of Adolescence	Maksniemi, E.
2022	Frontiers in Public Health	Marciano, L.
2018	Computers in Human Behavior	Marengo, D.
2018	Computers in Human Behavior	Marino C
		Marino, C.
		,
2020	Children and Youth Services Review	Marks, R.J.

Literature Review - Other Authors	Literature Review - Article NameTitle
Roberts, S. R., Nesi, J., Widman, L., & Choukas-Bradley, S.	Longitudinal associations between appearance- related social media consciousness and adolescents' depressive symptoms.
Hietajärvi, L., Ketonen, E. E., Lonka, K., Puukko, K., & Salmela-Aro, K.	Intraindividual associations between active social media use, exhaustion, and bedtime vary according to age-A longitudinal study across adolescence.
Hietajärvi, L., Ketonen, E. E., Lonka, K., Puukko, K., & Salmela-Aro, K.	Intraindividual associations between active social media use, exhaustion, and bedtime vary according to age-A longitudinal study across adolescence.
Ostroumova, M., Schulz, P. J., & Camerini, A. L.	Digital Media Use and Adolescents' Mental Health During the Covid-19 Pandemic: A Systematic Review and Meta-Analysis.
Longobardi, C., Fabris, M. A., & Settanni, M.	Highly-visual social media and internalizing symptoms in adolescence: The mediating role of body image concerns.
Gini, G., Vieno, A., & Spada, M.	A comprehensive meta-analysis on Problematic Facebook Use.
Gini, G., Vieno, A., & Spada, M. M.	The associations between problematic Facebook use, psychological distress and well-being among adolescents and young adults: A systematic review and meta-analysis.
Foe, A.D., & Collett, J.	The pursuit of wellness: Social media, body image and eating disorders.

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Maheux, A. J., Roberts, S. R., Nesi, J., Widman, L., & Choukas-Bradley, S. (2022). Longitudinal associations between appearance-related social media consciousness and adolescents' depressive symptoms. Journal of adolescence, 94(2), 264–269. https://doi.org/10.1002/jad.12009

Maksniemi, E., Hietajärvi, L., Ketonen, E. E., Lonka, K., Puukko, K., & Salmela-Aro, K. (2022). Intraindividual associations between active social media use, exhaustion, and bedtime vary according to age-A longitudinal study across adolescence. Journal of Adolescence, 94(3), 401–414. https://doi.org/10.1002/jad.12033

Maksniemi, E., Hietajärvi, L., Ketonen, E. E., Lonka, K., Puukko, K., & Salmela-Aro, K. (2022). Intraindividual associations between active social media use, exhaustion, and bedtime vary according to age-A longitudinal study across adolescence. Journal of Adolescence, 94(3), 401–414. https://doi.org/10.1002/jad.12033

Marciano, L., Ostroumova, M., Schulz, P. J., & Camerini, A. L. (2022). Digital Media Use and Adolescents' Mental Health During the Covid-19 Pandemic: A Systematic Review and Meta-Analysis. Frontiers in Public Health, 9, 793868. https://doi.org/10.3389/fpubh.2021.793868

Marengo, D., Longobardi, C., Fabris, M. A., & Settanni, M. (2018). Highly-visual social media and internalizing symptoms in adolescence: The mediating role of body image concerns. Computers in Human Behavior, 82, 63-69.

Marino, C., Gini, G., Vieno, A., & Spada, M. M. (2018). A comprehensive meta-analysis on Problematic Facebook Use. Computers in Human Behavior, 83, 262–277. https://doi.org/10.1016/j.chb.2018.02.009

Marino, C., Gini, G., Vieno, A., & Spada, M. M. (2018). The associations between problematic Facebook use, psychological distress and well-being among adolescents and young adults: A systematic review and meta-analysis. Journal of Affective Disorders, 226, 274-281.

Marks, R.J., Foe, A.D., & Collett, J. (2020). The pursuit of wellness: Social media, body image and eating disorders. Children and Youth Services Review, 119, 105659.

Literature		
Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2015	Biological Psychiatry	Marsh, R.
2013	Biological I sychiatry	William, K.
2016	World Journal of Psychiatry	Martin Monzon, B.
2020	Adolescent Research Review	Massing-Schaffer, M.
2013	PloS one	Masuda, N.
2019	JAMA Facial Plastic Surgery	Maymone, M. B. C.
2022	IAMA Dadiatrias	Maza M.T
2023	JAMA Pediatrics	Maza, M. T.
2020	Sleep	McArdle, N.
2023	Media Psychology	McComb, C.A.
2023	1110010 1 5 1010105 9	1,10001110, 0.71.

Literature Review - Other Authors	Literature Review - Article NameTitle
Stefan, M., Bansal, R., Hao, X., Walsh, B. T., & Peterson, B. S.	Anatomical characteristics of the cerebral surface in bulimia nervosa.
Hay, P., Foroughi, N., & Touyz, S. (2016).	White matter alterations in anorexia nervosa: A systematic review of diffusion tensor imaging studies.
Nesi, J.	Cybervictimization and suicide risk in adolescence: An integrative model of social media and suicide theories.
Kurahashi, I., & Onari, H.	Suicide ideation of individuals in online social networks.
Rajanala, S., & Vashi, N. A.	Social Networks and the Rhinoplasty Patient-Reply.
Fox, K. A., Kwon, S. J., Flannery, J. E., Lindquist, K. A., Prinstein, M. J., & Telzer, E. H.	Association of Habitual Checking Behaviors on Social Media With Longitudinal Functional Brain Development.
Ward, S. V., Bucks, R. S., Maddison, K., Smith, A., Huang, R. C., Pennell, C. E., Hillman, D. R., & Eastwood, P. R.	The prevalence of common sleep disorders in young adults: a descriptive population-based study.
Vanman, E.J., & Tobin, S.J.	A Meta-Analysis of the Effects of Social Media Exposure to Upward Comparison Targets on Self- Evaluations and Emotions.

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Martin Monzon, B., Hay, P., Foroughi, N., & Touyz, S. (2016). White matter alterations in anorexia nervosa: A systematic review of diffusion tensor imaging studies. World Journal of Psychiatry, 6(1), 177–186. https://doi.org/10.5498/wjp.v6.i1.177

Massing-Schaffer, M., & Nesi, J. (2020). Cybervictimization and suicide risk in adolescence: An integrative model of social media and suicide theories. Adolescent Research Review, 5(1), 49–65. https://doi.org/10.1007/s40894-019-00116-y

Masuda, N., Kurahashi, I., & Onari, H. (2013). Suicide ideation of individuals in online social networks. PloS one, 8(4), e62262. https://doi.org/10.1371/journal.pone.0062262

Maymone, M. B. C., Rajanala, S., & Vashi, N. A. (2019). Social Networks and the Rhinoplasty Patient-Reply. JAMA Facial Plastic Surgery, 21(3), 265. https://doi.org/10.1001/jamafacial.2019.0071

Maza, M. T., Fox, K. A., Kwon, S. J., Flannery, J. E., Lindquist, K. A., Prinstein, M. J., & Telzer, E. H. (2023). Association of Habitual Checking Behaviors on Social Media With Longitudinal Functional Brain Development. JAMA Pediatrics, 177(2), 160–167.

McArdle, N., Ward, S. V., Bucks, R. S., Maddison, K., Smith, A., Huang, R. C., Pennell, C. E., Hillman, D. R., & Eastwood, P. R. (2020). The prevalence of common sleep disorders in young adults: a descriptive population-based study. Sleep, 43(10), zsaa072. https://doi.org/10.1093/sleep/zsaa072

McComb, C.A., Vanman, E.J., & Tobin, S.J. (2023). A Meta-Analysis of the Effects of Social Media Exposure to Upward Comparison Targets on Self-Evaluations and Emotions. Media Psychology, 26, 612 - 635.

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2020	Children and Youth Services	M. Carana
2020	Review	McCrory, A.
2015	The International Journal of Eating Disorders	McLean, S. A.
2017	Adolescent Research Review	Mcrae, N.
2015	Journal of Eating Disorders	Mehler, P. S.
2015	Journal of Eating Disorders	Mehler, P. S.
2021	Communication Research	Meier, A.
2018	Indian Journal of Psychiatry	Memon, A. M.
2025	JAMA Psychiatry	Menegaz de Almeida, A.

Literature Review - Other Authors	Literature Review - Article NameTitle
Best, P., & Maddock, A.	The relationship between highly visual social media and young people's mental health: A scoping review.
Paxton, S. J., Wertheim, E. H., & Masters, J.	Photoshopping the selfie: Self photo editing and photo investment are associated with body dissatisfaction in adolescent girls.
N/A	Social media and depressive symptoms in childhood and adolescence: A systematic review.
Brown, C.	Anorexia nervosa - medical complications
Rylander, M.	Bulimia Nervosa - medical complications.
Reinecke, L.	Computer-mediated communication, social media, and mental health: A conceptual and empirical meta-review.
Sharma, S. G., Mohite, S. S., & Jain, S.	The role of online social networking on deliberate self-harm and suicidality in adolescents: A systematized review of literature.
Aquino de Moraes, F. C.,	
Cavalcanti Souza, M. E.,	
Cavalcanti Orestes Cardoso, J. H., Tamashiro, F., Miranda, C.,	Bright Light Therapy for Nonseasonal Depressive
Fernandes, L., Kreuz, M., & Alves Kelly, F.	Disorders: A Systematic Review and Meta-Analysis.

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McCrory, A., Best, P., & Maddock, A. (2020). The relationship between highly visual social media and young people's mental health: A scoping review. Children and Youth Services Review, 115, Article 105053.

https://doi.org/10.1016/j.childyouth.2020.105053

McLean, S. A., Paxton, S. J., Wertheim, E. H., & Masters, J. (2015). Photoshopping the selfie: Self photo editing and photo investment are associated with body dissatisfaction in adolescent girls. The International Journal of Eating Disorders, 48(8), 1132–1140. https://doi.org/10.1002/eat.22449

Mccrae, N., Gettings, S., & Purssell, E. (2017). Social media and depressive symptoms in childhood and adolescence: A systematic review. Adolescent Research Review, 2, 315-330.

Mehler, P. S., & Brown, C. (2015). Anorexia nervosa - medical complications. Journal of Eating Disorders, 3, 11. https://doi.org/10.1186/s40337-015-0040-8

Mehler, P. S., & Rylander, M. (2015). Bulimia Nervosa - medical complications. Journal of Eating Disorders, 3, 12. https://doi.org/10.1186/s40337-015-0044-4

Meier, A., & Reinecke, L. (2021). Computer-mediated communication, social media, and mental health: A conceptual and empirical meta-review. Communication Research, 48(8), 1182–1209. https://doi.org/10.1177/0093650220958224

Memon, A. M., Sharma, S. G., Mohite, S. S., & Jain, S. (2018). The role of online social networking on deliberate self-harm and suicidality in adolescents: A systematized review of literature. Indian Journal of Psychiatry, 60(4), 384–392. https://doi.org/10.4103/psychiatry_IndianJPsychiatry_414_17

Menegaz de Almeida, A., Aquino de Moraes, F. C., Cavalcanti Souza, M. E., Cavalcanti Orestes Cardoso, J. H., Tamashiro, F., Miranda, C., Fernandes, L., Kreuz, M., & Alves Kelly, F. (2025). Bright Light Therapy for Nonseasonal Depressive Disorders: A Systematic Review and Meta-Analysis. JAMA Psychiatry, 82(1), 38–46. https://doi.org/10.1001/jamapsychiatry.2024.2871

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year	Enteractare Review Gournal	Enerature Review Lead rathor
	International Journal of	
2021	Environmental Research and	N. C
2021	Public Health	Mento, C.
2017	JAMA	Mercado, M. C.
2022	Pediatrics	Millimon C E
2023	Pediatrics	Milliren, C. E.
	The International Journal of	
2016	Eating Disorders	Misra, M.
2007	Danientina Madiaina	Mitaball IV I
2007	Preventive Medicine	Mitchell, K. J.
2024	Addictive Behaviors	Montag, C.
	Intermetional Income 1 of	
	International Journal of Environmental Research and	
2019	Public Health	Montag, C.
2021	Frontiers in Public Health	Montag, C.

Literature Review - Other Authors	Literature Review - Article NameTitle
Silvestri, M. C., Muscatello, M. R. A., Rizzo, A., Celebre, L., Praticò, M., Zoccali, R. A., & Bruno, A.	Psychological Impact of Pro-Anorexia and Pro- Eating Disorder Websites on Adolescent Females: A Systematic Review.
Holland, K., Leemis, R. W., Stone, D. M., & Wang, J.	Trends in Emergency Department Visits for Nonfatal Self-inflicted Injuries Among Youth Aged 10 to 24 Years in the United States, 2001-2015.
Richmond, T. K., & Hudgins, J. D.	Emergency Department Visits and Hospitalizations for Eating Disorders During the COVID-19 Pandemic.
Golden, N. H., & Katzman, D. K.	State of the art systematic review of bone disease in anorexia nervosa.
Ybarra, M. L.	Online behavior of youth who engage in self-harm provides clues for preventive intervention.
Demetrovics, Z., Elhai, J. D., Grant, D., Koning, I., Rumpf, H. J., M Spada, M., Throuvala, M., & van den Eijnden, R.	Problematic social media use in childhood and adolescence.
Lachmann, B., Herrlich, M., & Zweig, K.	Addictive Features of Social Media/Messenger Platforms and Freemium Games against the Background of Psychological and Economic Theories.
Yang, H., & Elhai, J. D.	On the psychology of TikTok use: a first glimpse from empirical findings.

Literature Review - APA Publication Cite

Mento, C., Silvestri, M. C., Muscatello, M. R. A., Rizzo, A., Celebre, L., Praticò, M., Zoccali, R. A., & Bruno, A. (2021). Psychological Impact of Pro-Anorexia and Pro-Eating Disorder Websites on Adolescent Females: A Systematic Review. International Journal of Environmental Research and Public Health, 18(4), 2186. https://doi.org/10.3390/ijerph18042186

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Milliren, C. E., Richmond, T. K., & Hudgins, J. D. (2023). Emergency Department Visits and Hospitalizations for Eating Disorders During the COVID-19 Pandemic. Pediatrics, 151(1), e2022058198. https://doi.org/10.1542/peds.2022-058198

Misra, M., Golden, N. H., & Katzman, D. K. (2016). State of the art systematic review of bone disease in anorexia nervosa. The International Journal of Eating Disorders, 49(3), 276–292. https://doi.org/10.1002/eat.22451

Mitchell, K. J., & Ybarra, M. L. (2007). Online behavior of youth who engage in self-harm provides clues for preventive intervention. Preventive Medicine, 45(5), 392–396. https://doi.org/10.1016/j.ypmed.2007.05.008

Montag, C., Demetrovics, Z., Elhai, J. D., Grant, D., Koning, I., Rumpf, H. J., M Spada, M., Throuvala, M., & van den Eijnden, R. (2024). Problematic social media use in childhood and adolescence. Addictive Behaviors, 153, 107980. https://doi.org/10.1016/j.addbeh.2024.107980

Montag, C., Lachmann, B., Herrlich, M., & Zweig, K. (2019). Addictive Features of Social Media/Messenger Platforms and Freemium Games against the Background of Psychological and Economic Theories. International Journal of Environmental Research and Public Health, 16(14), 2612. https://doi.org/10.3390/ijerph16142612

Montag, C., Yang, H., & Elhai, J. D. (2021). On the psychology of TikTok use: a first glimpse from empirical findings. Frontiers in Public Health, 9, Article 6471673.

https://doi.org/10.3389/fpubh.2021.641673

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2020	Appetite	Moorman, E. L.
in press	Journal of Adolescent Health	Mora Ringle, V.
	Cyberpsychology, Behavior	
2024	and Social Networking	Morales-Arjona, I.
2011	Archives of Pediatrics & Adolescent Medicine	Moreno, M. A.
2016	The Journal of Adolescent Health	Moreno, M. A.
2004	European Eating Disorders Review	Morris, J.
2020	Experimental Economics	Mosquera, R.
2022	Acta Psychiatrica Scandinavica	Murray S B

Literature Review - Other Authors	Literature Review - Article NameTitle
Warnick, J. L., Acharya, R., & Janicke, D. M.	The use of internet sources for nutritional information is linked to weight perception and disordered eating in young adolescents.
Sung, J., Roulston, C., & Schleider, J. L.	Mixed-methods examination of adolescent-reported barriers to accessing mental health services.
Benítez-Hidalgo, V., Ruiz-Pérez, I., Higueras-Callejón, C., & Pastor-Moreno, G.	Cyberbullying and Suicidal Behavior, Self-Harm, and Nonsuicidal Self-Injury: A Systematic Review of Longitudinal Studies.
Jelenchick, L., Cox, E., Young, H., & Christakis, D. A.	Problematic internet use among US youth: a systematic review.
Ton, A., Selkie, E., & Evans, Y.	Secret Society 123: Understanding the Language of Self-Harm on Instagram.
Tothill, P., Gard, m., McPhail, K., Hannan, J., Cowen, S., & Freeman, C	Reduced bone mineral density in bulimia as well as anorexia nervosa.
Odunowo, M., McNamara, T., Guo, X., & Petrie, R.	The economic effects of Facebook.
Cabeen, R. P., Jann, K., Tadayonnejad, R., Strober, M., & Feusner, J. D.	White matter microstructure in habit and reward circuits in anorexia nervosa: Insights from a neurite orientation dispersion and density imaging study.

Literature Review - APA Publication Cite

Moorman, E. L., Warnick, J. L., Acharya, R., & Janicke, D. M. (2020). The use of internet sources for nutritional information is linked to weight perception and disordered eating in young adolescents. Appetite, 154, 104782.

Mora Ringle, V., Sung, J., Roulston, C., & Schleider, J. L. (in press). Mixed-methods examination of adolescent-reported barriers to accessing mental health services. Journal of Adolescent Health.

Morales-Arjona, I., Benítez-Hidalgo, V., Ruiz-Pérez, I., Higueras-Callejón, C., & Pastor-Moreno, G. (2024). Cyberbullying and Suicidal Behavior, Self-Harm, and Nonsuicidal Self-Injury: A Systematic Review of Longitudinal Studies. Cyberpsychology, Behavior and Social Networking, 27(10), 683–691. https://doi.org/10.1089/cyber.2024.0097

Moreno, M. A., Jelenchick, L., Cox, E., Young, H., & Christakis, D. A. (2011). Problematic internet use among US youth: a systematic review. Archives of Pediatrics & Adolescent Medicine, 165(9), 797–805. https://doi.org/10.1001/archpediatrics.2011.58

Moreno, M. A., Ton, A., Selkie, E., & Evans, Y. (2016). Secret Society 123: Understanding the Language of Self-Harm on Instagram. The Journal of Adolescent Health, 58(1), 78–84.

Morris, J., Tothill, P., Gard, m., McPhail, K., Hannan, J., Cowen, S., & Freeman, C. (2004). Reduced bone mineral density in bulimia as well as anorexia nervosa. European Eating Disorders Review, 12, 71 - 78. https://doi.org/10.1002/erv.561

Mosquera, R., Odunowo, M., McNamara, T., Guo, X., & Petrie, R. (2020). The economic effects of Facebook. Experimental Economics, 23, 575-602.

Murray, S. B., Cabeen, R. P., Jann, K., Tadayonnejad, R., Strober, M., & Feusner, J. D. (2023). White matter microstructure in habit and reward circuits in anorexia nervosa: Insights from a neurite orientation dispersion and density imaging study. Acta Psychiatrica Scandinavica, 147(2), 134–144. https://doi.org/10.1111/acps.13521

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2022	Psychiatry Research	Murray, S. B.
2018	Appetite	Murray, S. B.
2010		M a B
2019	Pscychological Medicine	Murray, S. B.
	The International Journal of	
2021	Eating Disorders	Nagata, J. M.
2021		1145444, 5. 111.
	Mass Communication &	
2024	Society	Nan, Y.
		,
	Journal of Abnormal Child	
2015	Psychology	Nesi, J.
2021	Clinical Psychology Review	Nesi, J.

Literature Review - Other Authors	Literature Review - Article NameTitle
Duval, C. J., Balkchyan, A. A., Cabeen, R. P., Nagata, J. M., Toga, A. W., Siegel, S. J., & Jann, K.	Regional gray matter abnormalities in pre- adolescent binge eating disorder: A voxel-based morphometry study.
Pila, E., Mond, J. M., Mitchison, D., Blashill, A. J., Sabiston, C. M., & Griffiths, S.	Cheat meals: A benign or ominous variant of binge eating behavior?
Quintana, D. S., Loeb, K. L., Griffiths, S., & Le Grange, D.	Treatment outcomes for anorexia nervosa: a systematic review and meta-analysis of randomized controlled trials.
Iyer, P., Chu, J., Baker, F. C., Pettee Gabriel, K., Garber, A. K., Murray, S. B., Bibbins- Domingo, K., & Ganson, K. T.	Contemporary screen time modalities among children 9-10 years old and binge-eating disorder at one-year follow-up: A prospective cohort study.
Qin, J., Li, Z., Kim, N. G., Kim, S. S. Y., & Miller, L. C.	Is social media use related to social anxiety? A meta-analysis.
Prinstein, M. J.	Using Social Media for Social Comparison and Feedback-Seeking: Gender and Popularity Moderate Associations with Depressive Symptoms.
Burke, T. A., Bettis, A. H., Kudinova, A. Y., Thompson, E. C., MacPherson, H. A., Fox, K. A., Lawrence, H. R., Thomas, S. A., Wolff, J. C., Altemus, M. K., Soriano, S., & Liu, R. T.	Social Media Use and Self-Injurious Thoughts and Behaviors: A Systematic Review and Meta-Analysis.

Literature Review - APA Publication Cite

Murray, S. B., Duval, C. J., Balkchyan, A. A., Cabeen, R. P., Nagata, J. M., Toga, A. W., Siegel, S. J., & Jann, K. (2022). Regional gray matter abnormalities in pre-adolescent binge eating disorder: A voxel-based morphometry study. Psychiatry Research, 310, 114473. https://doi.org/10.1016/j.psychres.2022.114473

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Nan, Y., Qin, J., Li, Z., Kim, N. G., Kim, S. S. Y., & Miller, L. C. (2024). Is social media use related to social anxiety? A meta-analysis. Mass Communication & Society, 27(3), 441–474. https://doi.org/10.1080/15205436.2024.2321533

Nesi, J., & Prinstein, M. J. (2015). Using Social Media for Social Comparison and Feedback-Seeking: Gender and Popularity Moderate Associations with Depressive Symptoms. Journal of Abnormal Child Psychology, 43, 1427-1438.

Nesi, J., Burke, T. A., Bettis, A. H., Kudinova, A. Y., Thompson, E. C., MacPherson, H. A., Fox, K. A., Lawrence, H. R., Thomas, S. A., Wolff, J. C., Altemus, M. K., Soriano, S., & Liu, R. T. (2021). Social Media Use and Self-Injurious Thoughts and Behaviors: A Systematic Review and Meta-Analysis. Clinical Psychology Review, 87, 102038.

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2018	Clinical Child and Family Psychology Review	Nesi, J.
2021	Journal of Clinical Child & Adolescent Psychology	Nesi, J.
2011	Journal of the American Dietetic Association	Neumark-Sztainer, D.
1995	Psychological Bulletin	Newcomb, A. F.
	, ,	,
2020	Social Media + Society	Nguyen, M. H.
2019	Frontiers in Psychiatry	Nickel, K.

Literature Review - Other Authors	Literature Review - Article NameTitle
	Transformation of Adolescent Peer Relations in the
Choukas-Bradley, S., & Prinstein, M. J.	Social Media Context: Part 2-Application to Peer Group Processes and Future Directions for Research.
Rothenberg, W. A., Bettis, A. H., Massing-Schaffer, M., Fox,	Emotional Responses to Social Media Experiences
K. A., Telzer, E. H., & Prinstein, M. J.	Among Adolescents: Longitudinal Associations with Depressive Symptoms.
Wall, M., Larson, N. I.,	Dieting and disordered eating behaviors from adolescence to young adulthood: findings from a
Eisenberg, M. E., & Loth, K.	10-year longitudinal study.
Bagwell, C. L. (1995).	Children's friendship relations: A meta-analytic review.
Gruber, J., Fuchs, J., Marler, W., Hunsaker, A., & Hargittai, E.	Changes in Digital Communication During the COVID-19 Global Pandemic: Implications for Digital Inequality and Future Research.
Tebartz van Elst, L., Holovics, L., Feige, B., Glauche, V., Fortenbacher, T., Endres, D.,	White Matter Abnormalities in the Corpus Callosum in Acute and Recovered Anorexia
Zeeck, A., Tüscher, O., Joos, A., & Maier, S.	Nervosa Patients-A Diffusion Tensor Imaging Study.

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Nesi, J., Choukas-Bradley, S., & Prinstein, M. J. (2018). Transformation of Adolescent Peer Relations in the Social Media Context: Part 2-Application to Peer Group Processes and Future Directions for Research. Clinical Child and Family Psychology Review, 21(3), 295–319. https://doi.org/10.1007/s10567-018-0262-9

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Nguyen, M. H., Gruber, J., Fuchs, J., Marler, W., Hunsaker, A., & Hargittai, E. (2020). Changes in Digital Communication During the COVID-19 Global Pandemic: Implications for Digital Inequality and Future Research. Social Media + Society, 6(3). https://doi.org/10.1177/2056305120948255 (Original work published 2020)

Nickel, K., Tebartz van Elst, L., Holovics, L., Feige, B., Glauche, V., Fortenbacher, T., Endres, D., Zeeck, A., Tüscher, O., Joos, A., & Maier, S. (2019). White Matter Abnormalities in the Corpus Callosum in Acute and Recovered Anorexia Nervosa Patients-A Diffusion Tensor Imaging Study. Frontiers in Psychiatry, 10, 490. https://doi.org/10.3389/fpsyt.2019.00490

Literature		
Review - Year	Literature Review - Journal	Literature Review - Lead Author
1 ear		
2014	Developmental Psychology	Nikkelen, S. W.
	Computers in Human	
2021	Behavior Reports	O'Day, E.B.
2018	Nature	Odgers C.L.
	Journal of Child Psychology	
2020	and Psychiatry, and Allied Disciplines	Odgers, C. L.
2011	Sleep Medicine Research	Ohayon, M. M.
	•	
	Journal of the American	
2000	Academy of Child and Adolescent Psychiatry	Ohayon, M. M.
2000	- I syemany	
	Social Psychiatry and	
2020	Psychiatric Epidemiology	Orben A.
2019	Nature Human Behaviour	Orben, A.
2021		
2024	Nature Reviews Psychology	Orben, A.

Literature Review - Other Authors	Literature Review - Article NameTitle
Valkenburg, P. M., Huizinga, M., & Bushman, B. J.	Media use and ADHD-related behaviors in children and adolescents: A meta-analysis.
	Social media use, social anxiety, and loneliness: A
Heimberg, R.G.	systematic review.
N/A	Smartphones are bad for some teens, not all.
Jensen, M. R.	Adolescent mental health in the digital age: facts, fears, and future directions.
N/A	Epidemiological overview of sleep disorders in the general population.
Roberts, R. E., Zulley, J., Smirne, S., & Priest, R. G.	Prevalence and patterns of problematic sleep among older adolescents.
N/A	Teenagers, screens and social media: a narrative review of reviews and key studies.
Przybylski, A. K.	The association between adolescent well-being and digital technology use.
Meier, A., Dalgleish, T., & Blakemore, SJ.	Mechanisms linking social media use to adolescent mental health vulnerability.

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Nikkelen, S. W., Valkenburg, P. M., Huizinga, M., & Bushman, B. J. (2014). Media use and ADHD-related behaviors in children and adolescents: A meta-analysis. Developmental Psychology, 50(9), 2228–2241. https://doi.org/10.1037/a0037318

O'Day, E.B., & Heimberg, R.G. (2021). Social media use, social anxiety, and loneliness: A systematic review. Computers in Human Behavior Reports, 3, 100070.

https://doi.org/10.1016/j.chbr.2021.100070

Odgers C.L. (2018). Smartphones are bad for some teens, not all. Nature, 554(7693), 432–434. https://doi.org/10.1038/d41586-018-02109-8

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Ohayon, M. M. (2011). Epidemiological overview of sleep disorders in the general population. Sleep Medicine Research, 2(1), 1-9. https://doi.org/10.17241/smr.2011.2.1.1

Ohayon, M. M., Roberts, R. E., Zulley, J., Smirne, S., & Priest, R. G. (2000). Prevalence and patterns of problematic sleep among older adolescents. Journal of the American Academy of Child and Adolescent Psychiatry, 39(12), 1549–1556. https://doi.org/10.1097/00004583-200012000-00019

Orben A. (2020). Teenagers, screens and social media: a narrative review of reviews and key studies. Social Psychiatry and Psychiatric Epidemiology, 55(4), 407–414. https://doi.org/10.1007/s00127-019-01825-4

Orben, A., & Przybylski, A. K. (2019). The association between adolescent well-being and digital technology use. Nature Human Behaviour, 3(2), 173–182. https://doi.org/10.1038/s41562-018-0506-1

Orben, A., Meier, A., Dalgleish, T., & Blakemore, S.-J. (2024). Mechanisms linking social media use to adolescent mental health vulnerability. Nature Reviews Psychology, 3(6), 407–423. https://doi.org/10.1038/s44159-024-00307-y

Literature		
Review - Year	Literature Review - Journal	Literature Review - Lead Author
1 car		
2021	Aesthetic Surgery Journal	Othman, S.
2021	D. 11	0 4. 17
2021	Pediatrics	Otto, A. K.
	The American Journal of	
2001	Psychiatry	Otto, M. W.
2022	D140 D	
2023	BMC Psychology	Ozimek, P.
2023	Computers in Human Behavior	Pagano, M.
2022		5
2023	Nature Mental Health	Panayiotou, M.
2016	Journal of Clinical Sleep	Domythi C
2016	Medicine	Paruthi, S.

Literature Review - Other Authors	Literature Review - Article NameTitle
Lyons, T., Cohn, J. E., Shokri, T., & Bloom, J. D.	The Influence of Photo Editing Applications on Patients Seeking Facial Plastic Surgery Services.
Jary, J. M., Sturza, J., Miller, C. A., Prohaska, N., Bravender, T., & Van Huysse, J.	Medical Admissions Among Adolescents With Eating Disorders During the COVID-19 Pandemic.
Wilhelm, S., Cohen, L. S., & Harlow, B. L.	Prevalence of body dysmorphic disorder in a community sample of women.
Lainas, S., Bierhoff, H. W., & Rohmann, E.	How photo editing in social media shapes self- perceived attractiveness and self-esteem via self- objectification and physical appearance comparisons.
Bacaro, V., & Crocetti, E.	"Using digital media or sleeping that is the question". A meta-analysis on digital media use and unhealthy sleep in adolescence.
Black, L., Carmichael-Murphy, P., Humphrey, N.	Time spent on social media among the least influential factors in adolescent mental health: preliminary results from a panel network analysis.
Brooks, L. J., D'Ambrosio, C., Hall, W. A., Kotagal, S., Lloyd, R. M., Malow, B. A., Maski, K., Nichols, C., Quan, S. F., Rosen, C. L., Troester, M. M., & Wise, M. S.	Recommended Amount of Sleep for Pediatric Populations: A Consensus Statement of the American Academy of Sleep Medicine.

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Othman, S., Lyons, T., Cohn, J. E., Shokri, T., & Bloom, J. D. (2021). The Influence of Photo Editing Applications on Patients Seeking Facial Plastic Surgery Services. Aesthetic Surgery Journal, 41(3), NP101–NP110. https://doi.org/10.1093/asj/sjaa065

Otto, A. K., Jary, J. M., Sturza, J., Miller, C. A., Prohaska, N., Bravender, T., & Van Huysse, J. (2021). Medical Admissions Among Adolescents With Eating Disorders During the COVID-19 Pandemic. Pediatrics, 148(4), e2021052201. https://doi.org/10.1542/peds.2021-052201

Otto, M. W., Wilhelm, S., Cohen, L. S., & Harlow, B. L. (2001). Prevalence of body dysmorphic disorder in a community sample of women. The American Journal of Psychiatry, 158(12), 2061–2063. https://doi.org/10.1176/appi.ajp.158.12.2061

Ozimek, P., Lainas, S., Bierhoff, H. W., & Rohmann, E. (2023). How photo editing in social media shapes self-perceived attractiveness and self-esteem via self-objectification and physical appearance comparisons. BMC Psychology, 11(1), 99. https://doi.org/10.1186/s40359-023-01143-0

Pagano, M., Bacaro, V., & Crocetti, E. (2023). "Using digital media or sleeping ... that is the question". A meta-analysis on digital media use and unhealthy sleep in adolescence. Computers in Human Behavior. 146. 107813. 10.1016/j.chb.2023.107813

Panayiotou, M., Black, L., Carmichael-Murphy, P., Humphrey, N. (2023). Time spent on social media among the least influential factors in adolescent mental health: preliminary results from a panel network analysis. Nature Mental Health, 1, 316–326. https://doi.org/10.1038/s44220-023-00063-7

Paruthi, S., Brooks, L. J., D'Ambrosio, C., Hall, W. A., Kotagal, S., Lloyd, R. M., Malow, B. A., Maski, K., Nichols, C., Quan, S. F., Rosen, C. L., Troester, M. M., & Wise, M. S. (2016). Recommended Amount of Sleep for Pediatric Populations: A Consensus Statement of the American Academy of Sleep Medicine. Journal of Clinical Sleep Medicine, 12(6), 785–786. https://doi.org/10.5664/jcsm.5866

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2009	Lancet	Patton, G. C.
	International Journal of	
2022	Environmental Research and Public Health	Pedalino, F.
2022	Tublic Health	redamio, r.
2022	Journal of Eating Disorders	Pehlivan, M. J.
2022	Frontiers in Psychiatry	Pellegrino, A.
2019	JAMA Facial Plastic Surgery	Pendolino, A. L.
2007	Division and Describing	DL:11: IZ A
2007	Primary Psychiatry	Phillips, K. A.
2005	Comprehensive Psychiatry	Phillips, K. A.
	- Simpromono Por Esperiment	po,
	The American Journal of	
2016	Psychiatry	Phillips, K. A.
	The American Journal of	
2006	Psychiatry	Phillips, K. A.

Literature Review - Other Authors	Literature Review - Article NameTitle
Coffey, C., Sawyer, S. M., Viner, R. M., Haller, D. M., Bose, K., Vos, T., Ferguson, J.,	Global patterns of mortality in young people: a
& Mathers, C. D.	systematic analysis of population health data.
Camerini, A. L.	Instagram Use and Body Dissatisfaction: The Mediating Role of Upward Social Comparison with Peers and Influencers among Young Females.
Miskovic-Wheatley, J., Le, A., Maloney, D., Research Consortium, N. E. D., Touyz, S., & Maguire, S.	Models of care for eating disorders: findings from a rapid review.
Stasi, A., & Bhatiasevi, V.	Research trends in social media addiction and problematic social media use: A bibliometric analysis.
Ottaviano, G.	Social Networks and the Rhinoplasty Patient.
N/A	Suicidality in Body Dysmorphic Disorder.
Grant, J. E.	A retrospective follow-up study of body dysmorphic disorder.
Keshaviah, A., Dougherty, D. D., Stout, R. L., Menard, W., & Wilhelm, S.	Pharmacotherapy Relapse Prevention in Body Dysmorphic Disorder: A Double-Blind, Placebo- Controlled Trial.
Pagano, M. E., Menard, W., & Stout, R. L.	A 12-month follow-up study of the course of body dysmorphic disorder.

Literature Review - APA Publication Cite

Patton, G. C., Coffey, C., Sawyer, S. M., Viner, R. M., Haller, D. M., Bose, K., Vos, T., Ferguson, J., & Mathers, C. D. (2009). Global patterns of mortality in young people: a systematic analysis of population health data. Lancet (London, England), 374(9693), 881–892. https://doi.org/10.1016/S0140-6736(09)60741-8

Pedalino, F., & Camerini, A. L. (2022). Instagram Use and Body Dissatisfaction: The Mediating Role of Upward Social Comparison with Peers and Influencers among Young Females. International Journal of Environmental Research and Public Health, 19(3), 1543. https://doi.org/10.3390/ijerph19031543

Pehlivan, M. J., Miskovic-Wheatley, J., Le, A., Maloney, D., Research Consortium, N. E. D., Touyz, S., & Maguire, S. (2022). Models of care for eating disorders: findings from a rapid review. Journal of Eating Disorders, 10(1), 166. https://doi.org/10.1186/s40337-022-00671-1

Pellegrino, A., Stasi, A., & Bhatiasevi, V. (2022). Research trends in social media addiction and problematic social media use: A bibliometric analysis. Frontiers in Psychiatry, 13, 1017506.

Pendolino, A. L., & Ottaviano, G. (2019). Social Networks and the Rhinoplasty Patient. JAMA Facial Plastic Surgery, 21(3), 264–265. https://doi.org/10.1001/jamafacial.2018.1391

Phillips K. A. (2007). Suicidality in Body Dysmorphic Disorder. Primary Psychiatry, 14(12), 58–66.

Phillips, K. A., Grant, J. E., Siniscalchi, J. M., Stout, R., & Price, L. H. (2005). A retrospective follow-up study of body dysmorphic disorder. Comprehensive Psychiatry, 46(5), 315–321. https://doi.org/10.1016/j.comppsych.2004.12.001

Phillips, K. A., Keshaviah, A., Dougherty, D. D., Stout, R. L., Menard, W., & Wilhelm, S. (2016). Pharmacotherapy Relapse Prevention in Body Dysmorphic Disorder: A Double-Blind, Placebo-Controlled Trial. The American Journal of Psychiatry, 173(9), 887–895. https://doi.org/10.1176/appi.ajp.2016.15091243

Phillips, K. A., Pagano, M. E., Menard, W., & Stout, R. L. (2006). A 12-month follow-up study of the course of body dysmorphic disorder. The American Journal of Psychiatry, 163(5), 907–912. https://doi.org/10.1176/ajp.2006.163.5.907

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	The International Journal of	
2017	Eating Disorders	Pila, E.
	Scandinavian Journal of	
2024	Pscychology	Pitiruţ, I. B.
	Journal of Medical Internet Research	Plackett, R.
2023	Research	Flackett, K.
2022	Prevention Science	Polanin, J. R.
2023	Clinical Child Psychology and Psychiatry	Popat, A.
2008	NCHS	Pratt, L. A.
	Acta Psychiatrica Scandinavica	
2017	Computers in Human Behavior	Primack, B. A.

Literature Review - Other Authors	Literature Review - Article NameTitle
Mond, J. M., Griffiths, S., Mitchison, D., & Murray, S. B.	A thematic content analysis of #cheatmeal images on social media: Characterizing an emerging dietary trend.
Swami, V., Poamă-Neagră, T., & Enea, V.	Appearance-based rejection sensitivity mediates the relationship between Instagram addiction and dysmorphic concerns in young adult women.
Blyth, A., & Schartau, P.	The Impact of Social Media Use Interventions on Mental Well-Being: Systematic Review.
Polanin, J. R., Grotpeter, J. K., Ingram, K., Michaelson, L., Spinney, E., Valido, A., Sheikh, A. E., Torgal, C., & Robinson, L.	A Systematic Review and Meta-analysis of Interventions to Decrease Cyberbullying Perpetration and Victimization.
Tarrant, C. 4	Exploring adolescents' perspectives on social media and mental health and well-being - A qualitative literature review.
Brody, D. J.	Depression in the United States household population, 2005-2006.
Rocchi, M. B., Sisti, D., Camboni, M. V., & Miotto, P.	A comprehensive meta-analysis of the risk of suicide in eating disorders.
Shensa, A., Escobar-Viera, C. G., Barrett, E. L., Sidani, J. E., Colditz, J. B., & James, A. E.	Use of multiple social media platforms and symptoms of depression and anxiety: A nationally-representative study among U.S. Young adults.

Literature Review - APA Publication Cite

Pila, E., Mond, J. M., Griffiths, S., Mitchison, D., & Murray, S. B. (2017). A thematic content analysis of #cheatmeal images on social media: Characterizing an emerging dietary trend. The International Journal of Eating Disorders, 50(6), 698–706. https://doi.org/10.1002/eat.22671

Pitiruţ, I. B., Swami, V., Poamă-Neagră, T., & Enea, V. (2024). Appearance-based rejection sensitivity mediates the relationship between Instagram addiction and dysmorphic concerns in young adult women. Scandinavian Journal of Psychology, 65(2), 275–283. https://doi.org/10.1111/sjop.12973

Plackett, R., Blyth, A., & Schartau, P. (2023). The Impact of Social Media Use Interventions on Mental Well-Being: Systematic Review. Journal of Medical Internet Research, 25, e44922. https://doi.org/10.2196/44922

Polanin, J. R., Espelage, D. L., Grotpeter, J. K., Ingram, K., Michaelson, L., Spinney, E., Valido, A., Sheikh, A. E., Torgal, C., & Robinson, L. (2022). A Systematic Review and Meta-analysis of Interventions to Decrease Cyberbullying Perpetration and Victimization. Prevention Science, 23(3), 439–454. https://doi.org/10.1007/s11121-021-01259-y

Popat, A., & Tarrant, C. (2023). Exploring adolescents' perspectives on social media and mental health and well-being - A qualitative literature review. Clinical Child Psychology and Psychiatry, 28(1), 323–337.

https://doi.org/10.1177/13591045221092884

Pratt, L. A., & Brody, D. J. (2008). Depression in the United States household population, 2005-2006. NCHS data brief, (7), 1–8. https://www.cdc.gov/nchs/data/databriefs/db07.pdf

Preti, A., Rocchi, M. B., Sisti, D., Camboni, M. V., & Miotto, P. (2011). A comprehensive meta-analysis of the risk of suicide in eating disorders. Acta Psychiatrica Scandinavica, 124(1), 6–17. https://doi.org/10.1111/j.1600-0447.2010.01641.x

Primack, B. A., Shensa, A., Escobar-Viera, C. G., Barrett, E. L., Sidani, J. E., Colditz, J. B., & James, A. E. (2017). Use of multiple social media platforms and symptoms of depression and anxiety: A nationally-representative study among U.S. Young adults. Computers in Human Behavior, 69, 1–9. https://doi.org/10.1016/j.chb.2016.11.013

Literature	
Review - Literature Review - Journal Literature Review - Year	iew - Lead Author
Tear	
2016 Computers in Human Behavior Prizant-Passal, S	
2023 BMJ Purba, A. K.	
The International Journal of	
2024 Eating Disorders Quadflieg, N.	
The International Journal of 2019 Eating Disorders Quadflieg, N.	
Mobile Media & Radtke, T.	
2022 Communication Radike, 1.	
2018 JAMA Facial Plastic Surgery Rajanala, S.	
2024 Narra J Ramadhan, R. N	
Journal of Technology in 2023 Behavioral Science Reed, P.	

Literature Review - Other Authors	Literature Review - Article NameTitle
Shechner, T., & Aderka, I. M.	Social anxiety and internet use—A meta-analysis: What do we know? What are we missing?
Thomson, R. M., Henery, P. M., Pearce, A., Henderson, M., &	Social media use and health risk behaviours in
Katikireddi, S. V.	young people: systematic review and meta-analysis.
N. I. G. Fill. M. O.	Long-Term Outcome and Mortality in Adolescent
Naab, S., Fichter, M., & Voderholzer, U.	Girls 8 Years After Treatment for Anorexia Nervosa. 9
	Long-term outcome of inpatients with bulimia
Fichter, M. M.	nervosa-Results from the Christina Barz Study.
And T. Cahankal V. Vallan I	Disital datam An affactive calution in the
Apel, T., Schenkel, K., Keller, J., & von Lindern, E.	Digital detox: An effective solution in the smartphone era? A systematic literature review.
Maymone, M. B. C., & Vashi, N. A.	Selfies-Living in the Era of Filtered Photographs. JAMA Facial Plastic Surgery, 20(6), 443–444.
Rampengan, D. D., Yumnanisha, D. A., Setiono, S. B., Tjandra, K.	
C., Ariyanto, M. V., Idrisov, B.,	Impacts of digital social media detox for mental
& Empitu, M. A.	health: A systematic review and meta-analysis.
	Reduction in Social Media Usage Produces Improvements in Physical Health and Wellbeing:
Fowkes, T. & Khela, M.	An RCT.

Literature Review - APA Publication Cite

Prizant-Passal, S., Shechner, T., & Aderka, I. M. (2016). Social anxiety and internet use—A meta-analysis: What do we know? What are we missing? Computers in Human Behavior, 62, 221–229. https://doi.org/10.1016/j.chb.2016.04.003

Purba, A. K., Thomson, R. M., Henery, P. M., Pearce, A., Henderson, M., & Katikireddi, S. V. (2023). Social media use and health risk behaviours in young people: systematic review and meta-analysis. BMJ (Clinical research ed.), 383, e073552. https://doi.org/10.1136/bmj-2022-073552

Quadflieg, N., Naab, S., Fichter, M., & Voderholzer, U. (2024). Long-Term Outcome and Mortality in Adolescent Girls 8 Years After Treatment for Anorexia Nervosa. The International Journal of Eating Disorders, 57(12), 2497–2503. https://doi.org/10.1002/eat.24299

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Reed, P., Fowkes, T. & Khela, M. (2023). Reduction in Social Media Usage Produces Improvements in Physical Health and Wellbeing: An RCT. Journal of Technology in Behavioral Science, 8, 140–147. https://doi.org/10.1007/s41347-023-00304-7

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2018	Sleep Science	Reis, C.
2018	Journal of Medical Internet Research	Ridout, B.
2006	Psychological Medicine	Rief, W.
	JAMA Psychiatry	Riehm, K. E.
	The International Journal of Eating Disorders	Roberto, C. A.
	Sleep	Roberts, R. E.
	Cyberpsychology: Journal of Psychosocial Research on Cyberspace	Roberts, K. E. Roberts, S.
2016	Early Intervention in Psychiatry	Robinson, J.

Literature Review - Other Authors	Literature Review - Article NameTitle
Dias, S.	Sleep duration, lifestyles and chronic diseases: a cross-sectional population-based study.
Campbell, A.	The Use of Social Networking Sites in Mental Health Interventions for Young People: Systematic Review.
Buhlmann, U., Wilhelm, S., Borkenhagen, A., & Brähler, E.	The prevalence of body dysmorphic disorder: a population-based survey.
Feder, K. A., Tormohlen, K. N., Crum, R. M., Young, A. S., Green, K. M., Pacek, L. R., La Flair, L. N., & Mojtabai, R.	Associations Between Time Spent Using Social Media and Internalizing and Externalizing Problems Among US Youth.
Mayer, L. E., Brickman, A. M., Barnes, A., Muraskin, J., Yeung, L. K., Steffener, J., Sy, M., Hirsch, J., Stern, Y., & Walsh, B. T.	Brain tissue volume changes following weight gain in adults with anorexia nervosa.
Duong, H. T.	The prospective association between sleep deprivation and depression among adolescents.
Malcolm, C., McCarty, K., & Pollet, T.	No relationships between self-reported Instagram use or type of use and mental well-being: A study using a nationally representative online sample of UK adults.
Cox, G., Bailey, E., Hetrick, S., Rodrigues, M., Fisher, S., & Herrman, H.	Social media and suicide prevention: a systematic review.

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Reis, C., Dias, S., Rodrigues, A. M., Sousa, R. D., Gregório, M. J., Branco, J., Canhão, H., & Paiva, T. (2018). Sleep duration, lifestyles and chronic diseases: a cross-sectional population-based study. Sleep Science (Sao Paulo, Brazil), 11(4), 217–230. https://doi.org/10.5935/1984-0063.20180036

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Roberto, C. A., Mayer, L. E., Brickman, A. M., Barnes, A., Muraskin, J., Yeung, L. K., Steffener, J., Sy, M., Hirsch, J., Stern, Y., & Walsh, B. T. (2011). Brain tissue volume changes following weight gain in adults with anorexia nervosa. The International Journal of Eating disorders, 44(5), 406–411. https://doi.org/10.1002/eat.20840

Roberts, R. E., & Duong, H. T. (2014). The prospective association between sleep deprivation and depression among adolescents. Sleep, 37(2), 239–244. https://doi.org/10.5665/sleep.3388

Roberts, S., Malcolm, C., McCarty, K., & Pollet, T. (2023). No relationships between self-reported Instagram use or type of use and mental well-being: A study using a nationally representative online sample of UK adults. [In Press]. Cyberpsychology: Journal of Psychosocial Research on Cyberspace

Robinson, J., Cox, G., Bailey, E., Hetrick, S., Rodrigues, M., Fisher, S., & Herrman, H. (2016). Social media and suicide prevention: a systematic review. Early Intervention in Psychiatry, 10(2), 103–121. https://doi.org/10.1111/eip.12229

Literature		
Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2016	Osteoporosis International	Robinson, L.
2010	osteoporosis international	roomson, Er
	American Psychological	
2009	Association	Rodham, K.
2010	Developmental Psychobiology	Romer D.
	1 0	
2022	Frantiars in Digital Haalth	Rosič, J.
2022	Frontiers in Digital Health	ROSIC, J.
	The Journal of Clinical	
2017	Psychiatry	Ruoff, C. M.
2005	Nutrition Noteworthy	Sagar, A.
2022	Frontiers in Psychiatry	Sagrera, C. E.

Literature Review - Other Authors	Literature Review - Article NameTitle
Aldridge, V., Clark, E. M., Misra, M., & Micali, N.	A systematic review and meta-analysis of the association between eating disorders and bone density.
Hawton, K.	Epidemiology and phenomenology of nonsuicidal self-injury. In M. K. Nock (Ed.), Understanding nonsuicidal self-injury: Origins, assessment, and treatment.
N/A	Adolescent risk taking, impulsivity, and brain development: implications for prevention.
Janicke-Bowles, S. H., Carbone, L., Lobe, B., & Vandenbosch, L.	Positive digital communication among youth: The development and validation of the digital flourishing scale for adolescents.
Reaven, N. L., Funk, S. E., McGaughey, K. J., Ohayon, M. M., Guilleminault, C., & Black, J.	High Rates of Psychiatric Comorbidity in Narcolepsy: Findings From the Burden of Narcolepsy Disease (BOND) Study of 9,312 Patients in the United States.
N/A	Long Term Health Risks Due to Impaired Nutrition in Women with a Past History of Bulimia Nervosa.
Magner, J., Temple, J., Lawrence, R., Magner, T. J., Avila-Quintero, V. J., McPherson, P., Alderman, L. L., Bhuiyan, M. A. N., Patterson, J. C., 2nd, & Murnane, K. S.	Social media use and body image issues among adolescents in a vulnerable Louisiana community.

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Ruoff, C. M., Reaven, N. L., Funk, S. E., McGaughey, K. J., Ohayon, M. M., Guilleminault, C., & Black, J. (2017). High Rates of Psychiatric Comorbidity in Narcolepsy: Findings From the Burden of Narcolepsy Disease (BOND) Study of 9,312 Patients in the United States. The Journal of Clinical Psychiatry, 78(2), 171–176. https://doi.org/10.4088/JCP.15m10262

Sagar, A. (2005). Long Term Health Risks Due to Impaired Nutrition in Women with a Past History of Bulimia Nervosa. Nutrition Noteworthy, 7(1).

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Sagrera, C. E., Magner, J., Temple, J., Lawrence, R., Magner, T. J., Avila-Quintero, V. J., McPherson, P., Alderman, L. L., Bhuiyan, M. A. N., Patterson, J. C., 2nd, & Murnane, K. S. (2022). Social media use and body image issues among adolescents in a vulnerable Louisiana community. Frontiers in Psychiatry, 13, 1001336.

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Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
	Journal of Psychiatric	
2023	Research	Sala, M.
2019	The Journal of Early Adolescence	Salomon, I.
2020	Journal of Orthodontics	Sampson, A.
	International Journal of Environmental Research and	
2021	Public Health	Sander, J.
2024	N. H. D.L.	
2024	Nature Human Behaviour	Sanders, T.
2021	Behaviour Research Methods	Satchell, L. P.

Literature Review - Other Authors	Literature Review - Article NameTitle
Keshishian, A., Song, S., Moskowitz, R., Bulik, C. M., Roos, C. R., & Levinson, C. A.	Predictors of relapse in eating disorders: A meta-analysis.
Brown, C. S.	The Selfie Generation: Examining the Relationship Between Social Media Use and Early Adolescent Body Image.
Jeremiah, H. G., Andiappan, M., & Newton, J. T.	The effect of viewing idealised smile images versus nature images via social media on immediate facial satisfaction in young adults: A randomised controlled trial.
Moessner, M., & Bauer, S.	Depression, Anxiety and Eating Disorder-Related Impairment: Moderators in Female Adolescents and Young Adults.
Noetel, M., Parker, P., Del Pozo Cruz, B., Biddle, S., Ronto, R., Hulteen, R., Parker, R., Thomas, G., De Cocker, K., Salmon, J., Hesketh, K., Weeks, N., Arnott, H., Devine, E., Vasconcellos, R., Pagano, R., Sherson, J., Conigrave, J., & Lonsdale, C.	An umbrella review of the benefits and risks associated with youths' interactions with electronic screens.
Fido, D., Harper, C. A., Shaw, H., Davidson, B., Ellis, D. A., Hart, C. M., Jalil, R., Bartoli, A. J., Kaye, L. K., Lancaster, G. L. J., & Pavetich, M.	Development of an Offline-Friend Addiction Questionnaire (O-FAQ): Are most people really social addicts?

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Sala, M., Keshishian, A., Song, S., Moskowitz, R., Bulik, C. M., Roos, C. R., & Levinson, C. A. (2023). Predictors of relapse in eating disorders: A meta-analysis. Journal of Psychiatric Research, 158, 281–299. https://doi.org/10.1016/j.jpsychires.2023.01.002

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Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2022	Child and Adolescent Psychiatric Clinics of North America	Saul, J.
2010	NeuroImage	Schäfer, A.
2020	Journal of Computer- Mediated Communication	Schemer, C.
2024	JAMA Network Open	Schmidt-Persson, J.
2017	The Australian and New Zealand Journal of Psychiatry	Schneider, S. C.
2025	Computers in Human Behaviour	Schroeder, M.
2023	Irish Journal of Psychological Medicine	Scully, M.
2016	JMIR Mental Health	Seabrook, E. M.

Literature Review - Other Authors	Literature Review - Article NameTitle
Rodgers, R. F., & Saul, M.	Adolescent Eating Disorder Risk and the Social Online World: An Update.
Vaitl, D., & Schienle, A.	Regional grey matter volume abnormalities in bulimia nervosa and binge-eating disorder.
Masur, P. K., GeiB, S., Muller, P., & Schafer, S.	The impact of internet and social media use on well-being: A longitudinal analysis of adolescents across nine years.
	,
Rasmussen, M. G. B., Sørensen, S. O., Mortensen, S. R., Olesen,	Screen Media Use and Mental Health of Children
L. G., Brage, S., Kristensen, P.	and Adolescents: A Secondary Analysis of a Randomized Clinical Trial.
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Turner, C. M., Mond, J., & Hudson, J. L.	Prevalence and correlates of body dysmorphic disorder in a community sample of adolescents.
	Digitally curated beauty: The impact of slimming
Behm-Morawitz, D.	beauty filters on body image, weight loss desire, self-objectification, and anti-fat attitudes.
	Social comparisons on social media: online appearance-related activity and body dissatisfaction
Swords, L., & Nixon, E.	in adolescent girls.
Kern, M. L., & Rickard, N. S.	Social Networking Sites, Depression, and Anxiety: A Systematic Review.

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https://doi.org/10.1016/j.neuroimage.2009.12.063

Schemer, C., Masur, P. K., GeiB, S., Muller, P., & Schafer, S. (2020). The impact of internet and social media use on well-being: A longitudinal analysis of adolescents across nine years. Journal of Computer-Mediated Communication, 26(1), 1-21. https://doi.org/10.1093/jcmc/zmaa014

Schmidt-Persson, J., Rasmussen, M. G. B., Sørensen, S. O., Mortensen, S. R., Olesen, L. G., Brage, S., Kristensen, P. L., Bilenberg, N., & Grøntved, A. (2024). Screen Media Use and Mental Health of Children and Adolescents: A Secondary Analysis of a Randomized Clinical Trial. JAMA Network Open, 7(7), e2419881.

https://doi.org/10.1001/jamanetworkopen.2024.19881

Schneider, S. C., Turner, C. M., Mond, J., & Hudson, J. L. (2017). Prevalence and correlates of body dysmorphic disorder in a community sample of adolescents. The Australian and New Zealand Journal of Psychiatry, 51(6), 595–603. https://doi.org/10.1177/0004867416665483

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Scully, M., Swords, L., & Nixon, E. (2023). Social comparisons on social media: online appearance-related activity and body dissatisfaction in adolescent girls. Irish Journal of Psychological Medicine, 40(1), 31–42. doi:10.1017/ipm.2020.93

Seabrook, E. M., Kern, M. L., & Rickard, N. S. (2016). Social Networking Sites, Depression, and Anxiety: A Systematic Review. JMIR Mental Health, 3(4), e50.

https://doi.org/10.2196/mental.5842

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2019	Current Opinion in Psychiatry	Sedgwick, R., S.
2020	International Journal of Clinical and Health Psychology	Senín-Calderón, C.
2022	JMIR Mental Health	Shannon, H.
2023	Journal of Eating Disorders	Sharma, A.
2016	Psychological Science	Sherman, L. E.
2022	Computers in Human Behavior	Shin, M.
2024	Communication Research	Siebers, T.
2023	In Review	Silverman, J.
2022	Advances in Nutrition	Sina, E.

Literature Review - Other Authors	Literature Review - Article NameTitle
Epstein, S., Dutta, R., & Ougrin, D.	Social media, internet use and suicide attempts in adolescents.
Perona-Garcelán, S., & Rodríguez-Testal, J. F.	The dark side of Instagram: Predictor model of dysmorphic concerns.
Bush, K., Villeneuve, P. J., Hellemans, K. G. C., & Guimond, S.	Problematic Social Media Use in Adolescents and Young Adults: Systematic Review and Meta-Analysis.
Vidal, C.	A scoping literature review of the associations between highly visual social media use and eating disorders and disordered eating: a changing landscape.
Payton, A. A., Hernandez, L. M., Greenfield, P. M., & Dapretto, M.	The Power of the Like in Adolescence: Effects of Peer Influence on Neural and Behavioral Responses to Social Media.
Juventin, M., Chu, J. T. W., Manor, Y., & Kemps, E.	Online media consumption and depression in young people: A systematic review and meta-analysis.
Beyens, I., Baumgartner, S. E., & Valkenburg, P. M.	Adolescents' Digital Nightlife: The Comparative Effects of Day- and Nighttime Smartphone Use on Sleep Quality.
Etkin, J., & Srna, S.	Can Time Limits Increase Time Spent? [In review].
Boakye, D., Christianson, L., Ahrens, W., & Hebestreit, A.	Social Media and Children's and Adolescents' Diets: A Systematic Review of the Underlying Social and Physiological Mechanisms.

Literature Review - APA Publication Cite

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Senín-Calderón, C., Perona-Garcelán, S., & Rodríguez-Testal, J. F. (2020). The dark side of Instagram: Predictor model of dysmorphic concerns. International Journal of Clinical and Health Psychology: IJCHP, 20(3), 253–261.

https://doi.org/10.1016/j.ijchp.2020.06.005

Shannon, H., Bush, K., Villeneuve, P. J., Hellemans, K. G. C., & Guimond, S. (2022) Problematic Social Media Use in Adolescents and Young Adults: Systematic Review and Meta-Analysis. JMIR Mental Health, 9(4), e33450.

Sharma, A., & Vidal, C. (2023). A scoping literature review of the associations between highly visual social media use and eating disorders and disordered eating: a changing landscape. Journal of Eating Disorders, 11, 170. https://doi.org/10.1186/s40337-023-00898-6

Sherman, L. E., Payton, A. A., Hernandez, L. M., Greenfield, P. M., & Dapretto, M. (2016). The Power of the Like in Adolescence: Effects of Peer Influence on Neural and Behavioral Responses to Social Media. Psychological Science, 27(7), 1027–1035.

Shin, M., Juventin, M., Chu, J. T. W., Manor, Y., & Kemps, E. (2022). Online media consumption and depression in young people: A systematic review and meta-analysis. Computers in Human Behavior, 128, 107129.

Siebers, T., Beyens, I., Baumgartner, S. E., & Valkenburg, P. M. (2024). Adolescents' Digital Nightlife: The Comparative Effects of Day- and Nighttime Smartphone Use on Sleep Quality. Communication Research, 0(0), 1-27.

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Silverman, J., Etkin, J., & Srna, S. (2023). Can Time Limits Increase Time Spent? [In review].

Sina, E., Boakye, D., Christianson, L., Ahrens, W., & Hebestreit, A. (2022). Social Media and Children's and Adolescents' Diets: A Systematic Review of the Underlying Social and Physiological Mechanisms. Advances in Nutrition, 13(3), 913–937. https://doi.org/10.1093/advances/nmac018

Literature		
Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2023	Cognitive Processing	Sireli, O.
2023	Cognitive Frocessing	Shen, O.
2024	Dodry Image	Smith O E
2024	Body Image	Smith, O. E.
	Journal of Bone and Mineral	
2023	Research	Søeby, M.
2019	BMC Psychiatry	Sohn, S.Y.
	Current Opinion in	
2010	Neurobiology	Somerville, L. H.
2014	Computers in Human Behavior	Song, H.
	•	_
	The International Journal of	
2017		Sousa, D. F.
	-	
2021	Cells	Speranza, L.
2021	CCIID	operanza, L.

Literature Review - Other Authors	Literature Review - Article NameTitle
Dayi, A., & Colak, M.	The mediating role of cognitive distortions in the relationship between problematic social media use and self-esteem in youth.
Mills, J. S., & Samson, L.	Out of the loop: Taking a one-week break from social media leads to better self-esteem and body image among young women.
Gribsholt, S. B., Clausen, L., & Richelsen, B.	Fracture Risk in Patients with Anorexia Nervosa Over a 40-Year Period.
Rees, P., Wildridge, B., Kalk, N. J., & Carter, B.	Prevalence of problematic smartphone usage and associated mental health outcomes amongst children and young people: a systematic review, meta-analysis and GRADE of the evidence.
Casey, B. J.	Developmental neurobiology of cognitive control and motivational systems.
Zmyslinski-Seelig, A., Kim, J., Drent, A., Victor, A., Omori, K., & Allen, M.	Does Facebook make you lonely?: A meta analysis.
Filho, J. D. Q., Bezerra Cavalcanti, R. C. P., Santos, A. B. D., & Rolim Neto, M. L.	The impact of the 'Blue Whale' game in the rates of suicide: Short psychological analysis of the phenomenon.
di Porzio, U., Viggiano, D., de Donato, A., & Volpicelli, F.	Dopamine: The Neuromodulator of Long-Term Synaptic Plasticity, Reward and Movement Control.

Literature Review - APA Publication Cite

Sireli, O., Dayi, A., & Colak, M. (2023). The mediating role of cognitive distortions in the relationship between problematic social media use and self-esteem in youth. Cognitive Processing, 24(4), 575–584. https://doi.org/10.1007/s10339-023-01155-z

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Somerville, L. H., & Casey, B. J. (2010). Developmental neurobiology of cognitive control and motivational systems. Current Opinion in Neurobiology, 20(2), 236–241. https://doi.org/10.1016/j.conb.2010.01.006

Song, H., Zmyslinski-Seelig, A., Kim, J., Drent, A., Victor, A., Omori, K., & Allen, M. (2014). Does Facebook make you lonely?: A meta analysis. Computers in Human Behavior, 36, 446–452. https://doi.org/10.1016/j.chb.2014.04.011

Sousa, D. F., Filho, J. D. Q., Bezerra Cavalcanti, R. C. P., Santos, A. B. D., & Rolim Neto, M. L. (2017). The impact of the 'Blue Whale' game in the rates of suicide: Short psychological analysis of the phenomenon. The International Journal of Social Psychiatry, 63(8), 796–797.

https://doi.org/10.1177/0020764017732595

Speranza, L., di Porzio, U., Viggiano, D., de Donato, A., & Volpicelli, F. (2021). Dopamine: The Neuromodulator of Long-Term Synaptic Plasticity, Reward and Movement Control. Cells, 10(4), 735. https://doi.org/10.3390/cells10040735

Literature Review - Literature Review - Journal Literature Review - Lead Aut Year	hor
2023 Journal of Affective Disorders Steare, T.	
2014 Journal of Affective Disorders Steinert, C.	
2023 Computers in Human Behavior Steinsbekk, S.	
The Australian and New	
The Australian and New 2021 Zealand Journal of Psychiatry Stevens, M. W.	
2021 Zealand Souther of Esperimenty Sections, W. W.	
2002 Psychological Bulletin Stice E.	
Behaviour Research and	
2011 Therapy Stice E.	
Journal of Child Psychology	
and Psychiatry, and Allied	
2010 Disciplines Stice, E.	
2019 BMJ Open Stiglic, N.	

Literature Review - Other Authors	Literature Review - Article NameTitle
Gutiérrez Muñoz, C., Sullivan, A., & Lewis, G.	The association between academic pressure and adolescent mental health problems: A systematic review.
Hofmann, M., Kruse, J., & Leichsenring, F.	Relapse rates after psychotherapy for depression - stable long-term effects? A meta-analysis.
Nesi, J., & Wichstrøm, L.	Social media behaviors and symptoms of anxiety and depression. A four-wave cohort study from age 10–16 years.
Dorstyn, D., Delfabbro, P. H., & King, D. L.	Global prevalence of gaming disorder: A systematic review and meta-analysis.
N/A	Risk and maintenance factors for eating pathology: a meta-analytic review.
Marti, C. N., & Durant, S.	Risk factors for onset of eating disorders: evidence of multiple risk pathways from an 8-year prospective study.
Ng, J., & Shaw, H.	Risk factors and prodromal eating pathology.
Viner, R. M.	Effects of screentime on the health and well-being of children and adolescents: a systematic review of reviews.

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https://www.medrxiv.org/content/10.1101/2023.01.24.23284938v1

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Steinsbekk, S., Nesi, J., & Wichstrøm, L. (2023). Social media behaviors and symptoms of anxiety and depression. A four-wave cohort study from age 10–16 years. Computers in Human Behavior, 147, 1–12. https://doi.org/10.1016/j.chb.2023.107859

Stevens, M. W., Dorstyn, D., Delfabbro, P. H., & King, D. L. (2021). Global prevalence of gaming disorder: A systematic review and meta-analysis. The Australian and New Zealand Journal of Psychiatry, 55(6), 553–568. https://doi.org/10.1177/0004867420962851

Stice E. (2002). Risk and maintenance factors for eating pathology: a meta-analytic review. Psychological Bulletin, 128(5), 825–848. https://doi.org/10.1037/0033-2909.128.5.825

Stice, E., Marti, C. N., & Durant, S. (2011). Risk factors for onset of eating disorders: evidence of multiple risk pathways from an 8-year prospective study. Behaviour Research and Therapy, 49(10), 622–627. https://doi.org/10.1016/j.brat.2011.06.009

Stice, E., Ng, J., & Shaw, H. (2010). Risk factors and prodromal eating pathology. Journal of Child Psychology and Psychiatry, and Allied Disciplines, 51(4), 518–525. https://doi.org/10.1111/j.1469-7610.2010.02212.x

Stiglic, N., & Viner, R. M. (2019). Effects of screentime on the health and well-being of children and adolescents: a systematic review of reviews. BMJ Open, 9:e023191. doi:10.1136/bmjopen-2018-023191

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	Review Journal of Autism and	
2018	Developmental Disorders	Stiller, A.
2010	Developmental Disorders	Stiller, 74.
2021	NeuroImage	Su, C.
	The Journal of Adolescent	
2019	Health	Sumner, S. A.
		,
	Journal of Child Psychology	
2022	and Psychiatry, and Allied Disciplines	Susi, K.
2023	Disciplines	Susi, K.
	Australian & New Zealand	
2023	Journal of Psychiatry	Sutcliffe, K.
2011	Archives of General Psychiatry	Swanson, S. A.

Literature Review - Other Authors	Literature Review - Article NameTitle
Mößle, T.	Media Use Among Children and Adolescents with Autism Spectrum Disorder: a Systematic Review.
Zhou, H., Gong, L., Teng, B.,	Viewing personalized video clips recommended by TikTok activates default mode network and ventral
Geng, F., & Hu, Y.	tegmental area.
Galik, S., Mathieu, J., Ward, M., Kiley, T., Bartholow, B., Dingwall, A., & Mork, P.	Temporal and Geographic Patterns of Social Media Posts About an Emerging Suicide Game.
Glover-Ford, F., Stewart, A., Knowles Bevis, R., & Hawton, K.	Research Review: Viewing self-harm images on the internet and social media platforms: systematic review of the impact and associated psychological mechanisms.
Ball, J, Clark, T. C., Archer, D., Peiris-John, R., Crengle, S., & Fleming, T.	Rapid and unequal decline in adolescent mental health and well-being 2012–2019: Findings from New Zealand cross-sectional surveys.
Crow, S. J., Le Grange, D., Swendsen, J., & Merikangas, K. R.	Prevalence and correlates of eating disorders in adolescents. Results from the national comorbidity survey replication adolescent supplement.

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Stiller, A., Mößle, T. Media Use Among Children and Adolescents with Autism Spectrum Disorder: a Systematic Review. Review Journal of Autism and Developmental Disorders, 227–246 (2018). https://doi.org/10.1007/s40489-018-0135-7

Su, C., Zhou, H., Gong, L., Teng, B., Geng, F., & Hu, Y. (2021). Viewing personalized video clips recommended by TikTok activates default mode network and ventral tegmental area. NeuroImage, 237, 118136.

https://doi.org/10.1016/j.neuroimage.2021.118136

Sumner, S. A., Galik, S., Mathieu, J., Ward, M., Kiley, T., Bartholow, B., Dingwall, A., & Mork, P. (2019). Temporal and Geographic Patterns of Social Media Posts About an Emerging Suicide Game. The Journal of Adolescent Health, 65(1), 94–100. https://doi.org/10.1016/j.jadohealth.2018.12.025

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Sutcliffe, K., Ball, J, Clark, T. C., Archer, D., Peiris-John, R., Crengle, S., & Fleming, T. (2023). Rapid and unequal decline in adolescent mental health and well-being 2012–2019: Findings from New Zealand cross-sectional surveys. Australian & New Zealand Journal of Psychiatry. 57(2):264-282. doi:10.1177/00048674221138503

Swanson, S. A., Crow, S. J., Le Grange, D., Swendsen, J., & Merikangas, K. R. (2011). Prevalence and correlates of eating disorders in adolescents. Results from the national comorbidity survey replication adolescent supplement. Archives of General Psychiatry, 68(7), 714–723.

https://doi.org/10.1001/archgenpsychiatry.2011.22

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2013	Journal of Medical Internet Research	Syed-Abdul, S.
2023	JAMA Pediatrics	Takahashi, I.
2021	Clinical Psychology Review	Tang, S.
2013	Eating and Weight Disorders	Teufel, M.
2013	Euring and Weight Disorders	Tearer, IVI.
2024	Psychology of Popular Media	Thai, H.
2021	Harld Tarl	Th II
2021	Health Technology	Thygesen, H.
2022	Body Image	Tiggemann M.
2018	Body Image	Tiggemann, M.

Literature Review - Other Authors	Literature Review - Article NameTitle
Fernandez-Luque, L., Jian, W. S., Li, Y. C., Crain, S., Hsu, M. H., Wang, Y. C., Khandregzen, D., Chuluunbaatar, E., Nguyen, P. A., & Liou, D. M.	Misleading health-related information promoted through video-based social media: anorexia on YouTube.
Obara, T., Ishikuro, M., Murakami, K., Ueno, F., Noda, A., Onuma, T., Shinoda, G., Nishimura, T., Tsuchiya, K. J., & Kuriyama, S.	Screen Time at Age 1 Year and Communication and Problem-Solving Developmental Delay at 2 and 4 Years.
Werner-Seidler, A., Torok, M., Mackinnon, A. J., & Christensen, H.	The relationship between screen time and mental health in young people: A systematic review of longitudinal studies.
Hofer, E., Junne, F., Sauer, H., Zipfel, S., & Giel, K. E.	A comparative analysis of anorexia nervosa groups on Facebook.
Davis, C. D., Mahboob, W., Perry, S., Adams, A. & Goldfield, G.	Reducing social media use improves appearance and weight esteem in youth with emotional distress.
Bonsaksen, T., Schoultz, M., Ruffolo, M., Price, D., & Geirdal, A.	Use and self-perceived effects of social media before and after the COVID-19 outbreak: a crossnational study.
N/A	Digital modification and body image on social media: Disclaimer labels, captions, hashtags, and comments.
Barbato, I.	"You look great!": The effect of viewing appearance-related Instagram comments on women's body image.

Literature Review - APA Publication Cite

Syed-Abdul, S., Fernandez-Luque, L., Jian, W. S., Li, Y. C., Crain, S., Hsu, M. H., Wang, Y. C., Khandregzen, D., Chuluunbaatar, E., Nguyen, P. A., & Liou, D. M. (2013). Misleading health-related information promoted through videobased social media: anorexia on YouTube. Journal of Medical Internet Research, 15(2), e30. https://doi.org/10.2196/jmir.2237

Takahashi, I., Obara, T., Ishikuro, M., Murakami, K., Ueno, F., Noda, A., Onuma, T., Shinoda, G., Nishimura, T., Tsuchiya, K. J., & Kuriyama, S. (2023). Screen Time at Age 1 Year and Communication and Problem-Solving Developmental Delay at 2 and 4 Years. JAMA Pediatrics, 177(10), 1039–1046. https://doi.org/10.1001/jamapediatrics.2023.3057

Tang, S., Werner-Seidler, A., Torok, M., Mackinnon, A. J., & Christensen, H. (2021). The relationship between screen time and mental health in young people: A systematic review of longitudinal studies. Clinical Psychology Review, 86, 102021. https://doi.org/10.1016/j.cpr.2021.102021

Teufel, M., Hofer, E., Junne, F., Sauer, H., Zipfel, S., & Giel, K. E. (2013). A comparative analysis of anorexia nervosa groups on Facebook. Eating and weight disorders: EWD, 18(4), 413–420. https://doi.org/10.1007/s40519-013-0050-y

Thai, H., Davis, C. D., Mahboob, W., Perry, S., Adams, A. & Goldfield, G. (2024) Reducing social media use improves appearance and weight esteem in youth with emotional distress. Psychology of Popular Media, 13, 162.

Thygesen, H., Bonsaksen, T., Schoultz, M., Ruffolo, M., Price, D., & Geirdal, A. (2021). Use and self-perceived effects of social media before and after the COVID-19 outbreak: a cross-national study. Health Technology. 11, 1347–1357. https://doi.org/10.1007/s12553-021-00595-x

Tiggemann M. (2022). Digital modification and body image on social media: Disclaimer labels, captions, hashtags, and comments. Body Image, 41, 172–180. https://doi.org/10.1016/j.bodyim.2022.02.012

Tiggemann, M., & Barbato, I. (2018). "You look great!": The effect of viewing appearance-related Instagram comments on women's body image. Body Image, 27, 61-66.

Literature Review -	Litanatuna Daviau Jaumal	Litaratura Davian, Land Author
Year	Literature Review - Journal	Literature Review - Lead Author
	The Journal of Early	
2014	The Journal of Early Adolescence	Tiggemann, M.
2020	Body Image	Tiggemann, M.
2020	Body mage	115501141111, 171.
2015	Body Image	Tiggemann, M.
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2019	Body Image	Tiggemann, M.
2020	Body Image	Tiggemann, M.
2018	Body Image	Tiggemann, M.
		66* ** *
2020	JAMA Psychiatry	Tith, R. M.
	The British Journal of	
2011	Psychiatry: The Journal of	
2011	Mental Science	Treasure, J.
	I COLLID	
2008	Journal of Child Psychology and Psychiatry	Tripp, G.

Literature Review - Other Authors	Literature Review - Article NameTitle
Slater, A.	NetTweens: The Internet and Body Image Concerns in Preteenage Girls.
Velissaris, V. G.	The effect of viewing challenging "reality check" Instagram comments on women's body image.
Zaccardo, M.	"Exercise to be fit, not skinny": The effect of fitspiration imagery on women's body image.
Zinoview, K.	The effect of #enhancement-free Instagram images and hashtags on women's body image.
Anderberg, I., & Brown, Z.	Uploading your best self: Selfie editing and body dissatisfaction.
Hayden, S., Brown, Z., & Veldhuis, J.	The effect of Instagram "likes" on women's social comparison and body dissatisfaction.
Paradis, G., Potter, B. J., Low, N., Healy-Profitós, J., He, S., & Auger, N.	Association of Bulimia Nervosa With Long-term Risk of Cardiovascular Disease and Mortality Among Women.
Russell, G.	The case for early intervention in anorexia nervosa: theoretical exploration of maintaining factors.
Wickens, J. R.	Research review: dopamine transfer deficit: a neurobiological theory of altered reinforcement mechanisms in ADHD.

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Tiggemann, M., & Slater, A. (2014). NetTweens: The Internet and Body Image Concerns in Preteenage Girls. The Journal of Early Adolescence, 34(5), 606-620.

https://doi.org/10.1177/0272431613501083

Tiggemann, M., & Velissaris, V. G., (2020). The effect of viewing challenging "reality check" Instagram comments on women's body image. Body Image, 33, 257-263.

Tiggemann, M., & Zaccardo, M. (2015). "Exercise to be fit, not skinny": The effect of fitspiration imagery on women's body image. Body Image, 15, 61–67.

https://doi.org/10.1016/j.bodyim.2015.06.003

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https://doi.org/10.1016/j.bodyim.2019.09.004

Tiggemann, M., Anderberg, I., & Brown, Z. (2020). Uploading your best self: Selfie editing and body dissatisfaction. Body Image, 33, 175–182. https://doi.org/10.1016/j.bodyim.2020.03.002

Tiggemann, M., Hayden, S., Brown, Z., & Veldhuis, J. (2018). The effect of Instagram "likes" on women's social comparison and body dissatisfaction. Body Image, 26, 90–97.

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https://doi.org/10.1001/jamapsychiatry.2019.2914

Treasure, J., & Russell, G. (2011). The case for early intervention in anorexia nervosa: theoretical exploration of maintaining factors. The British Journal of Psychiatry: The Journal of Mental Science, 199(1), 5–7. https://doi.org/10.1192/bjp.bp.110.087585

Tripp, G., & Wickens, J. R. (2008). Research review: dopamine transfer deficit: a neurobiological theory of altered reinforcement mechanisms in ADHD. Journal of Child Psychology and Psychiatry, 49(7), 691–704. https://doi.org/10.1111/j.1469-7610.2007.01851.x

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2024	JAMA Network Open	Tseng M. M.
2021	JMIR Formative Research	Tuck, A. B.
	Psychiatric Research and	
2020	Clinical Practice	Twenge J. M.
2020	Current Opinion in Psychology	Twongo I M
2020	Current Opinion in Psychology	I wenge J. M.
2022	Acta Psychologica	Twenge, J. M.
2018	Clinical Psychological Science	Twenge, J. M.
2022	Current Opinion in Psychology	Valkenburg, P. M.
2022	Current Opinion in Psychology	Valkenburg, P. M.

Literature Review - Other Authors	Literature Review - Article NameTitle
Chiou, K., Shao, J. Y., Liu, H.	Incidence and Risk of Cardiovascular Outcomes in Patients With Anorexia Nervosa.
Thompson, R. J.	Social Networking Site Use During the COVID-19 Pandemic and Its Associations With Social and Emotional Well-being in College Students: Survey Study.
N/A	Increases in Depression, Self-Harm, and Suicide Among U.S. Adolescents After 2012 and Links to Technology Use: Possible Mechanisms.
N/A	Why increases in adolescent depression may be linked to the technological environment.
Haidt, J., Lozano, J., Cummins, K. M.	Specification curve analysis shows that social media use is linked to poor mental health, especially among girls.
Joiner, T. E., Rogers, M. L., & Martin, G. N.	Corrigendum: Increases in Depressive Symptoms, Suicide-Related Outcomes, and Suicide Rates Among U.S. Adolescents After 2010 and Links to Increased New Media Screen Time.
Beyens, I., Meier, A., & Vanden Abeele, M. M. P.	Advancing our understanding of the associations between social media use and well-being.
Meier, A., & Beyens, I.	Social media use and its impact on adolescent mental health: An umbrella review of the evidence.

Literature Review - APA Publication Cite

Tseng M. M., Chiou, K., Shao, J. Y., Liu, H. (2024). Incidence and Risk of Cardiovascular Outcomes in Patients With Anorexia Nervosa. JAMA Network Open, 7(12):e2451094. doi:10.1001/jamanetworkopen.2024.51094

Tuck, A. B., & Thompson, R. J. (2021). Social Networking Site Use During the COVID-19 Pandemic and Its Associations With Social and Emotional Well-being in College Students: Survey Study. JMIR Formative Research, 5(9), e26513. https://doi.org/10.2196/26513

Twenge J. M. (2020). Increases in Depression, Self-Harm, and Suicide Among U.S. Adolescents After 2012 and Links to Technology Use: Possible Mechanisms. Psychiatric Research and Clinical Practice, 2(1), 19–25.

https://doi.org/10.1176/appi.prcp.20190015

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https://doi.org/10.1016/j.copsyc.2019.06.036

Twenge, J. M., Haidt, J., Lozano, J., Cummins, K. M. (2022). Specification curve analysis shows that social media use is linked to poor mental health, especially among girls. Acta Psychologica, 224, 103512. https://doi.org/10.1016/j.actpsy.2022.103512

Twenge, J. M., Rogers, M. L., & Martin, G. N. (2018). Corrigendum: Increases in Depressive Symptoms, Suicide-Related Outcomes, and Suicide Rates Among U.S. Adolescents After 2010 and Links to Increased New Media Screen Time. Clinical Psychological Science, 7(2), 397-397. https://doi.org/10.1177/2167702618824060

Valkenburg, P. M., Beyens, I., Meier, A., & Vanden Abeele, M. M. P. (2022). Advancing our understanding of the associations between social media use and well-being. Current Opinion in Psychology, 47, 101357.

https://doi.org/10.1016/j.copsyc.2022.101357

Valkenburg, P. M., Meier, A., & Beyens, I. (2022). Social media use and its impact on adolescent mental health: An umbrella review of the evidence. Current Opinion in Psychology, 44, 58–68. https://doi.org/10.1016/j.copsyc.2021.08.017

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2023	The Interational Journal of Eating Disorders	Vall, E.
2024	Social Media + Society	van der Wal, A.
	Current Opinion in Psychiatry	van Hoeken, D.
	Current Opinion in Psychology	
2017	Journal of Affective Disorders	Vannucci, A.
2016	Computers in Human Behavior	Vaterlaus, J. M.
2025	Cureus	Veras, E.
2022	Dec. A. Wies	Madaii T
2023	PsyArXiv	Verbeij, T.
2017	Social Issues and Policy Review	Verduyn, P.

Literature Review - Other Authors	Literature Review - Article NameTitle
Wade, T. D.	Predictors of treatment outcome in individuals with eating disorders: A systematic review and meta-analysis.
Valkenburg, P. M., & van Driel, I. I.	In their own words: How adolescents use social media and how It affects them.
Hoek, H. W.	Review of the burden of eating disorders: mortality, disability, costs, quality of life, and family burden.
Fardouly, J., & Tiggemann, M.	Social media and body image: Recent trends and future directions.
Flannery, K. M., & Ohannessian, C. M.	Social media use and anxiety in emerging adults.
Barnett, K., Roche, C., & Young, J.	"Snapchat is more personal": An exploratory study on Snapchat behaviors and young adult interpersonal relationships.
Ledesma, S., Matos, J. A. A., Cortorreal, M. E. C., Goncharova, I., Bonilla, R. B. R., Rosario, A. R., & Encarnacion-Ramirez, M.	Influence of Social Media Filters on Plastic Surgery: A Surgeon's Perspective on Evolving Patient Demands.
Beyens, I., Keijsers, L., & Valkenburg, P. M.	Social Media Use & Well-Being: Investigating Effect Consistency and Symmetry Across Three Time Intervals. [Abstract].
Ybarra, O., Résibois, M., Jonides, J., & Kross, E.	Do social network sites enhance or undermine subjective well-being? A critical review.

Literature Review - APA Publication Cite

Vall, E., & Wade, T. D. (2015). Predictors of treatment outcome in individuals with eating disorders: A systematic review and meta-analysis. The Interational Journal of Eating Disorders, 48(7), 946–971. https://doi.org/10.1002/eat.22411

van der Wal, A., Valkenburg, P. M., & van Driel, I. I. (2024). In their own words: How adolescents use social media and how It affects them. Social Media + Society, 10(2). https://doi.org/10.1177/20563051241248591

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Vandenbosch, L., Fardouly, J., & Tiggemann, M. (2022). Social media and body image: Recent trends and future directions. Current Opinion in Psychology, 45, 101289. https://doi.org/10.1016/j.copsyc.2021.12.002

Vannucci, A., Flannery, K. M., & Ohannessian, C. M. (2017). Social media use and anxiety in emerging adults. Journal of Affective Disorders, 207, 163–166. https://doi.org/10.1016/j.jad.2016.08.040

Vaterlaus, J. M., Barnett, K., Roche, C., & Young, J. (2016). "Snapchat is more personal": An exploratory study on Snapchat behaviors and young adult interpersonal relationships. Computers in Human Behavior, 62, 594-601. https://doi.org/10.1016/j.chb.2016.04.029

Veras, E., Ledesma, S., Matos, J. A. A., Cortorreal, M. E. C., Goncharova, I., Bonilla, R. B. R., Rosario, A. R., & Encarnacion-Ramirez, M. (2025). Influence of Social Media Filters on Plastic Surgery: A Surgeon's Perspective on Evolving Patient Demands. Cureus. 10.7759/cureus.80483

Verbeij, T., Beyens, I., Keijsers, L., & Valkenburg, P. M. (2023). Social Media Use & Well-Being: Investigating Effect Consistency and Symmetry Across Three Time Intervals. [Abstract]. PsyArXiv. https://osf.io/preprints/psyarxiv/a9ksb_v1

Verduyn, P., Ybarra, O., Résibois, M., Jonides, J., & Kross, E. (2017). Do social network sites enhance or undermine subjective well-being? A critical review. Social Issues and Policy Review, 11(1), 274–302. https://doi.org/10.1111/sipr.12033

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2020	Current Opinion in Neurobiology	Verharen, J. P. H.
2020	rearborology	v ornaron, v. r . rr.
2020	International Review of Psychiatry	Vidal, C.
2019	Psychological Medicine	von Schwanenflug, N.
2017	r sychological friedicine	von senwaremag, 1
2024	Clinical Devokalacias Caianas	Name M
2024	Clinical Psychological Science	vuone, M.
2023	Scientific Reports	Wallace, J.
2024	PLOS One	Walsh, L. C.
2017	Frontiers in Psychology	Wang, J. L.
2024	JAMA Pediatrics	Wang, M. L.

Literature Review - Other Authors	Literature Review - Article NameTitle
Zhu, Y., & Lammel, S.	Aversion hot spots in the dopamine system.
Lhaksampa, T., Miller, L., & Platt, R.	Social media use and depression in adolescents: a scoping review.
D. K., King, J. A., Ritschel, F., Bernardoni, F., Mohammadi, S., Geisler, D., Roessner, V., Biemann, R., Marxen, M., & Ehrlich, S.	Dynamic changes in white matter microstructure in anorexia nervosa: findings from a longitudinal study.
Przybylski, A. K.	Global Well-Being and Mental Health in the Internet Age.
Boers, E., Ouellet, J., Afzali, M. H., & Conrod, P.	Screen time, impulsivity, neuropsychological functions and their relationship to growth in adolescent attention-deficit/hyperactivity disorder symptoms.
Regan, A., Okabe-Miyamoto, K., & Lyubomirsky, S.	Does putting down your smartphone make you happier? the effects of restricting digital media on well-being.
Wang, H. Z., Gaskin, J., & Hawk, S.	The Mediating Roles of Upward Social Comparison and Self-esteem and the Moderating Role of Social Comparison Orientation in the Association between Social Networking Site Usage and Subjective Well-Being.
Togher, K.	Health Misinformation on Social Media and Adolescent Health.

Literature Review - APA Publication Cite

Verharen, J. P. H., Zhu, Y., & Lammel, S. (2020). Aversion hot spots in the dopamine system. Current Opinion in Neurobiology, 64, 46–52. https://doi.org/10.1016/j.conb.2020.02.002

Vidal, C., Lhaksampa, T., Miller, L., & Platt, R. (2020). Social media use and depression in adolescents: a scoping review. International Review of Psychiatry, 32(3), 235–253. https://doi.org/10.1080/09540261.2020.1720623

von Schwanenflug, N., Müller, D. K., King, J. A., Ritschel, F., Bernardoni, F., Mohammadi, S., Geisler, D., Roessner, V., Biemann, R., Marxen, M., & Ehrlich, S. (2019). Dynamic changes in white matter microstructure in anorexia nervosa: findings from a longitudinal study. Psychological Medicine, 49(9), 1555–1564. doi:10.1017/S003329171800212X

Vuorre, M., & Przybylski, A. K. (2024). Global Well-Being and Mental Health in the Internet Age. Clinical Psychological Science, 12(5), 917-935. https://doi.org/10.1177/21677026231207791

Wallace, J., Boers, E., Ouellet, J., Afzali, M. H., & Conrod, P. (2023). Screen time, impulsivity, neuropsychological functions and their relationship to growth in adolescent attention-deficit/hyperactivity disorder symptoms. Scientific Reports, 13(1), 18108. https://doi.org/10.1038/s41598-023-44105-7

Walsh, L. C., Regan, A., Okabe-Miyamoto, K., & Lyubomirsky, S. (2024). Does putting down your smartphone make you happier? the effects of restricting digital media on well-being. PLOS One, 19(10), e0306910. https://doi.org/10.1371/journal.pone.0306910

Wang, J. L., Wang, H. Z., Gaskin, J., & Hawk, S. (2017). The Mediating Roles of Upward Social Comparison and Self-esteem and the Moderating Role of Social Comparison Orientation in the Association between Social Networking Site Usage and Subjective Well-Being. Frontiers in Psychology, 8, 771. https://doi.org/10.3389/fpsyg.2017.00771

Wang, M. L., & Togher, K. (2024). Health Misinformation on Social Media and Adolescent Health. JAMA Pediatrics, 178(2), 109–110. https://doi.org/10.1001/jamapediatrics.2023.5282

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2025	The Lancet, Child & Adolescent Health	Ward, J. L.
2019	Nature Genetics	Watson, H. J.
2013	Pscychological Medicine	Watson, H. J.
2021	Depression and Anxiety	Weingarden, H.
2017	Computers in Human Behavior	Weinstein, E.

Literature Review - Other Authors	Literature Review - Article NameTitle
Vázquez-Vázquez, A., Phillips, K., Settle, K., Pilvar, H., Cornaglia, F., Gibson, F., Nicholls, D., Roland, D., Mathews, G., Roberts, H., Viner, R. M., & Hudson, L. D.	Admission to acute medical wards for mental health concerns among children and young people in England from 2012 to 2022: a cohort study.
Yilmaz, Z., Thornton, L. M., Hübel, C., Coleman, J. R. I., Gaspar, H. A., Bryois, J., Hinney, A., Leppä, V. M., Mattheisen, M., Medland, S. E., Ripke, S., Yao, S., Giusti- Rodríguez, P., Anorexia Nervosa Genetics Initiative, Hanscombe, K. B., Purves, K. L., Eating Disorders Working Group of the Psychiatric Genomics Consortium, Adan, R. A. H., Alfredsson, L., Bulik, C. M.	Genome-wide association study identifies eight risk loci and implicates metabo-psychiatric origins for anorexia nervosa
Bulik, C. M. Hoeppner, S. S., Snorrason, I., Greenberg, J. L., Phillips, K. A., & Wilhelm, S.	Update on the treatment of anorexia nervosa: review of clinical trials, practice guidelines and emerging interventions. Rates of remission, sustained remission, and recurrence in a randomized controlled trial of cognitive behavioral therapy versus supportive psychotherapy for body dysmorphic disorder.
N/A	Adolescents' differential responses to social media browsing: Exploring causes and consequences for intervention.

Literature Review - APA Publication Cite

Ward, J. L., Vázquez-Vázquez, A., Phillips, K., Settle, K., Pilvar, H., Cornaglia, F., Gibson, F., Nicholls, D., Roland, D., Mathews, G., Roberts, H., Viner, R. M., & Hudson, L. D. (2025). Admission to acute medical wards for mental health concerns among children and young people in England from 2012 to 2022: a cohort study. The Lancet. Child & Adolescent Health, 9(2), 112–120. https://doi.org/10.1016/S2352-4642(24)00333-X

Watson, H. J., Yilmaz, Z., Thornton, L. M., Hübel, C., Coleman, J. R. I., Gaspar, H. A., Bryois, J., Hinney, A., Leppä, V. M., Mattheisen, M., Medland, S. E., Ripke, S., Yao, S., Giusti-Rodríguez, P., Anorexia Nervosa Genetics Initiative, Hanscombe, K. B., Purves, K. L., Eating Disorders Working Group of the Psychiatric Genomics Consortium, Adan, R. A. H., Alfredsson, L., ... Bulik, C. M. (2019). Genome-wide association study identifies eight risk loci and implicates metabo-psychiatric origins for anorexia nervosa. Nature Genetics, 51(8), 1207–1214. https://doi.org/10.1038/s41588-019-0439-2

Watson, H. J., & Bulik, C. M. (2013). Update on the treatment of anorexia nervosa: review of clinical trials, practice guidelines and emerging interventions. Psychological Medicine, 43(12), 2477–2500. https://doi.org/10.1017/S0033291712002620

Weingarden, H., Hoeppner, S. S., Snorrason, I., Greenberg, J. L., Phillips, K. A., & Wilhelm, S. (2021). Rates of remission, sustained remission, and recurrence in a randomized controlled trial of cognitive behavioral therapy versus supportive psychotherapy for body dysmorphic disorder. Depression and Anxiety, 10.1002/da.23148. Advance online publication. https://doi.org/10.1002/da.23148

Weinstein, E. (2017). Adolescents' differential responses to social media browsing: Exploring causes and consequences for intervention. Computers in Human Behavior, 76, 396-405.

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2018	New Media & Society	Weinstein, E.
2023	The Journal of Social Media in Society	Westenberg, J. M.
2017	Journal of Medical Internet Research	Whitaker, C.
2024	Journal of Primary Care & Community Health	Wiciak M.T.
2020	The International Journal of Eating Disorders	Wilksch, S. M.
2008	American Psychologist	Wolak, J.
2013	PloS one	Won, H. H.
2016	Journal of Adolescence	Woods, H. C.

Literature Review - Other Authors	Literature Review - Article NameTitle
N/A	The social media see-saw: Positive and negative influences on adolescents' affective well-being.
N/A	The impact of body-positivity and body-checking TikTok videos on body image.
Stevelink, S., & Fear, N.	The Use of Facebook in Recruiting Participants for Health Research Purposes: A Systematic Review.
	Social Media Behaviors and Lifestyle Changes in Young Adults (Ages 18-28 years) During the
Shazley, O., & Santhosh, D.	COVID-19 Pandemic: Analysis From an International Cross-Sectional Study.
O'Shea, A., Ho, P., Byrne, S., & Wade, T. D.	The relationship between social media use and disordered eating in young adolescents.
Finkelhor, D., Mitchell, K. J., & Ybarra, M. L.	Online "predators" and their victims: Myths, realities, and implications for prevention and treatment.
Myung, W., Song, G. Y., Lee,	
W. H., Kim, J. W., Carroll, B. J., & Kim, D. K.	Predicting national suicide numbers with social media data.
	#Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety,
Scott, H.	depression and low self-esteem.

Literature Review - APA Publication Cite

Weinstein, E. (2018). The social media see-saw: Positive and negative influences on adolescents' affective well-being. New Media & Society, 20(10), 3597–3623.

https://doi.org/10.1177/1461444818755634

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Whitaker, C., Stevelink, S., & Fear, N. (2017). The Use of Facebook in Recruiting Participants for Health Research Purposes: A Systematic Review. Journal of Medical Internet Research, 19(8), e290. https://doi.org/10.2196/jmir.7071

Wiciak M.T., Shazley, O., & Santhosh, D. (2024). Social Media Behaviors and Lifestyle Changes in Young Adults (Ages 18-28 years) During the COVID-19 Pandemic: Analysis From an International Cross-Sectional Study. Journal of Primary Care & Community Health. 15, 1-8. doi:10.1177/21501319241228117

Wilksch, S. M., O'Shea, A., Ho, P., Byrne, S., & Wade, T. D. (2020). The relationship between social media use and disordered eating in young adolescents. The International Journal of Eating Disorders, 53(1), 96–106. https://doi.org/10.1002/eat.23198

Wolak, J., Finkelhor, D., Mitchell, K. J., & Ybarra, M. L. (2008). Online "predators" and their victims: Myths, realities, and implications for prevention and treatment. American Psychologist, 63(2), 111–128. https://doi.org/10.1037/0003-066X.63.2.111

Won, H. H., Myung, W., Song, G. Y., Lee, W. H., Kim, J. W., Carroll, B. J., & Kim, D. K. (2013). Predicting national suicide numbers with social media data. PloS one, 8(4), e61809. https://doi.org/10.1371/journal.pone.0061809

Woods, H. C., & Scott, H. (2016). #Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. Journal of Adolescence, 51, 41–49. https://doi.org/10.1016/j.adolescence.2016.05.008

eview - Lead Additor	പ	Literature Review - Journal	Literature Review -
	all	Literature Review - Journal	Year
	V	Addictive Behaviors	2024
	_	IEEE First International	
			2019
	rs X	Journal of Affective Disorders	2022
	\	SSM Population Health	2022
	1	SSIVI - I opulation Health	2023
	gy Y	Journal of Internet Technology	2019
	,	Public Health	2021
		Social Science Computer Review	2010
	gy Y	Conference on Cognitive Machine Intelligence Journal of Affective Disorders SSM - Population Health Journal of Internet Technology International Journal of Environmental Research and Public Health	2022 2023 2019

Literature Review - Other Authors	Literature Review - Article NameTitle
Huang, L., & Yang, F.	Social anxiety and problematic social media use: A systematic review and meta-analysis.
Vickers, S. D., Giordano, A. L., Lee, J., Kim, I. K., & Ramaswamay, L.	#selfharm on Instagram: Quantitative Analysis and Classification of Non-Suicidal Self-Injury
Liu, M., Liu, B., & Hall, B. J.	Trends in the incidence and DALYs of anxiety disorders at the global, regional, and national levels: Estimates from the Global Burden of Disease Study 2019.
Luo, L., Gamaldo, A., Verdery, A., Hardy, M., Buxton, O. M., & Xiao, Q.	Trends in sleep duration in the U.S. from 2004 to 2018: A decomposition analysis.
Wei, C., & Tang, J	Effect of Facebook Social Comparison on Wellbeing: A Meta-Analysis.
Griffiths, M. D., Yan, Z., & Xu, W.	Can watching online videos be addictive? A qualitative exploration of online video watching among Chinese young adults.
de Vries, D. A., Gentile, D. A., & Wang, JL.	Cultural Background and Measurement of Usage Moderate the Association Between Social Networking Sites (SNSs) Usage and Mental Health: A Meta-Analysis.

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Wu, W., Huang, L., & Yang, F. (2024). Social anxiety and problematic social media use: A systematic review and meta-analysis. Addictive Behaviors, 153, 107995. https://doi.org/10.1016/j.addbeh.2024.107995

Xiam, L., Vickers, S. D., Giordano, A. L., Lee, J., Kim, I. K., & Ramaswamay, L. (2019). #selfharm on Instagram: Quantitative Analysis and Classification of Non-Suicidal Self-Injury. 2019 IEEE First International Conference on Cognitive Machine Intelligence (CogMI). doi: 10.1109/CogMI48466.2019.00017.

Xiong, P., Liu, M., Liu, B., & Hall, B. J. (2022). Trends in the incidence and DALYs of anxiety disorders at the global, regional, and national levels: Estimates from the Global Burden of Disease Study 2019. Journal of Affective Disorders, 297, 83–93. https://doi.org/10.1016/j.jad.2021.10.022

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Yang, F., Wei, C., & Tang, J. (2019). Effect of Facebook Social Comparison on Well-being: A Meta-Analysis. Journal of Internet Technology, 20, 1829-1836.

Yang, Z., Griffiths, M. D., Yan, Z., & Xu, W. (2021). Can watching online videos be addictive? A qualitative exploration of online video watching among Chinese young adults. International Journal of Environmental Research and Public Health, 18, 7247. https://www.mdpi.com/1660-4601/18/14/7247

Yin, X.-Q., de Vries, D. A., Gentile, D. A., & Wang, J.-L. (2019). Cultural Background and Measurement of Usage Moderate the Association Between Social Networking Sites (SNSs) Usage and Mental Health: A Meta-Analysis. Social Science Computer Review, 37(5), 631-648.

https://doi.org/10.1177/0894439318784908

Literature		
Review - Year	Literature Review - Journal	Literature Review - Lead Author
1 ear		
2019	Journal of Affective Disorders	Yoon, S.
2023	Current Pediatrics Reports	Yue, Z.
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•040	Psychology of Popular Media	
2019	Culture	Yuen, E.
2021	Frontiers in Psychology	Zhang, J.
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2020		D 1 4
2020	Journal of Addiction Medicine	Bahji, A.
2017	Journal of Relationships Research	Ryan, T.
2021	N. N. II. O. C. I	m : .
2021	New Media & Society	Tariq, A.
2019	Curr Opin Pharmacol	Fetissov, SO

Literature Review - Other Authors	Literature Review - Article NameTitle
Kleinman, M., Mertz, J., & Brannick, M.	Is social network site usage related to depression? A meta-analysis of Facebook-depression relations.
Rich, M.	Social Media and Adolescent Mental Health.
Koterba, E. A., Stasio, M. J., Patrick, R. B., Gangi, C., Ash, P., Barakat, K., Greene, V., Hamilton, W., & Mansour, B.	The Effects of Facebook on Mood in Emerging Adults.
Wang, Y., Li, Q., & Wu, C.	The Relationship Between SNS Usage and Disordered Eating Behaviors: A Meta-Analysis.
Cheng, B., Gray, S., Stuart, H.	Mortality Among People with Opioid Use Disorder: A Systematic Review and Meta-analysis
Allen, K. A., Gray, D. L., & McInerney, D. M.	How Social Are Social Media? A Review of Online Social Behaviour and Connectedness
Muñoz Sáez, D., & Khan, S. R.	Social media use and family connectedness: A systematic review of quantitative literature
Hökfelt T.	On the origin of eating disorders: altered signaling between gut microbiota, adaptive immunity and the brain melanocortin system regulating feeding behavior

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Yoon, S., Kleinman, M., Mertz, J., & Brannick, M. (2019). Is social network site usage related to depression? A meta-analysis of Facebook-depression relations. Journal of Affective Disorders, 248, 65-72.

Yue, Z., Rich, M. (2023) Social Media and Adolescent Mental Health. Current Pediatrics Reports, 11, 157–166. https://doi.org/10.1007/s40124-023-00298-z

Yuen, E., Koterba, E. A., Stasio, M. J., Patrick, R. B., Gangi, C., Ash, P., Barakat, K., Greene, V., Hamilton, W., & Mansour, B. (2019). The Effects of Facebook on Mood in Emerging Adults. Psychology of Popular Media Culture, 8(3), 198-206.

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Ryan, T., Allen, K. A., Gray, D. L., & McInerney, D. M. (2017). How Social Are Social Media? A Review of Online Social Behaviour and Connectedness. Journal of Relationships Research, 8, e8. doi:10.1017/jrr.2017.13

Tariq, A., Muñoz Sáez, D., & Khan, S. R. (2021). Social media use and family connectedness: A systematic review of quantitative literature. New Media & Society, 24(3), 815-832. https://doi.org/10.1177/14614448211016885 (Original work published 2022)

Fetissov SO, Hökfelt T. On the origin of eating disorders: altered signaling between gut microbiota, adaptive immunity and the brain melanocortin system regulating feeding behavior. Curr Opin Pharmacol. 2019;48:82–91.

Literature		
Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2017	Curr Psychiatry Rep	Glenny EM
2017	Curi i sycinatry Kep	Gleffity EWI
2020	Eur Psychiatry	Carbone EA
2016	Int J Eat Disord	Berkowitz SA
2010	Body Image	Espinoza P
2016	Psychosom Med.	Caslini M
2020	Psychiatry Res.	Latzer Y
	and the second s	
2016	Clin Psychol Rev	Farstad SM
2017	PLOS One	Mulders-Jones B
2021	J Acad Nutr Diet	Barry MR
2010		
2019	Eating Behaviors	Cheng ZH

Literature Review - Other Authors	Literature Review - Article NameTitle
Bulik-Sullivan EC, Tang Q, Bulik CM, Carroll IM	Eating disorders and the intestinal microbiota: mechanisms of energy homeostasis and behavorial influence
D'Amato P, Vicchio G, De Fazio P, Segura-Garcia C	A systematic review on the role of microbiota in the pathogenesis and treatment of eating disorders
Witt AA, Gillberg C, Råstam M, Wentz E, Lowe MR	Childhood body mass index in adolescent-onset anorexia nervosa
Penelo E, Raich RM	Disordered eating behaviors and body image in a longitudinal pilot study of adolescent girls: what happens 2 years later?
Crocamo C, Dakanalis A, Clerici M, Carrà G	Disentangling the association between child abuse and eating disorders: a systematic review and meta-analysis
Rozenstain-Hason M, Kabakov O, Givon M, Mizrachi S, Alon S, et al	Childhood maltreatment in patients with binge eating disorder with and without night eating syndrome vs. control
McGeown LM, von Ranson KM	Eating disorders and personality, 2004–2016: a systematic review and meta-analysis
Mitchison D, Girosi F, Hay P.	Socioeconomic correlates of eating disorder symptoms in an Australian population-based sample.
Sonneville KR, Leung CW	Students with food insecurity are more likely to screen positive for an eating disorder at a large, public university in the Midwest
Perko VL, Fuller-Marashi L, Gau JM, Stice E.	Ethnic diferences in eating disorder prevalence, risk factors, and predictive efects of risk factors among young women.

Literature Review - APA Publication Cite

Glenny EM, Bulik-Sullivan EC, Tang Q, Bulik CM, Carroll IM. Eating disorders and the intestinal microbiota: mechanisms of energy homeostasis and behavioral influence. Curr Psychiatry Rep. 2017;19(8):51.

Carbone EA, D'Amato P, Vicchio G, De Fazio P, Segura-Garcia C. A systematic review on the role of microbiota in the pathogenesis and treatment of eating disorders. Eur Psychiatry. 2020;64(1): e2.

Berkowitz SA, Witt AA, Gillberg C, Råstam M, Wentz E, Lowe MR. Childhood body mass index in adolescent-onset anorexia nervosa. Int J Eat Disord. 2016;49(11):1002–9

Espinoza P, Penelo E, Raich RM. Disordered eating behaviors and body image in a longitudinal pilot study of adolescent girls: what happens 2 years later? Body Image. 2010;7(1):70–3

Caslini M, Bartoli F, Crocamo C, Dakanalis A, Clerici M, Carrà G. Disentangling the association between child abuse and eating disorders: a systematic review and meta-analysis. Psychosom Med. 2016;78(1):79–90.

Latzer Y, Rozenstain-Hason M, Kabakov O, Givon M, Mizrachi S, Alon S, et al. Childhood maltreatment in patients with binge eating disorder with and without night eating syndrome vs. control. Psychiatry Res. 2020;293:113451.

Farstad SM, McGeown LM, von Ranson KM. Eating disorders and personality, 2004–2016: a systematic review and meta-analysis. Clin Psychol Rev. 2016;1(46):91–105.

Mulders-Jones B, Mitchison D, Girosi F, Hay P. Socioeconomic correlates of eating disorder symptoms in an Australian population-based sample. PLoS ONE. 2017;12(1):e0170603

Barry MR, Sonneville KR, Leung CW. Students with food insecurity are more likely to screen positive for an eating disorder at a large, public university in the Midwest. J Acad Nutr Diet. 2021;121(6):1115–24.

Cheng ZH, Perko VL, Fuller-Marashi L, Gau JM, Stice E. Ethnic diferences in eating disorder prevalence, risk factors, and predictive efects of risk factors among young women. Eat Behav. 2019;1(32):23–30.

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2021	J Behav Cogn Ther	Gorrell S
	5	
2019	J Abnorm Psychol	Stice E.
	·	
2021	J Abnorm Psychol	Prnjak K
	Journal of Psychosomatic	
2002	Research	Stice, E.
	The International Journal of	
2001	Eating Disorders	Cooley, E.
1990	Psychological Medicine	Patton, G. C.
	Journal of Youth and	
2001	Adolescence	Wertheim, E.H.
4000	Archives of Pediatrics &	
1999	Adolescent Medicine	Field, A.E.

Literature Review - Other Authors	Literature Review - Article NameTitle
Grange DL, Blalock DV, Mehler PS, Johnson C, Manwaring J, et al	Gender identity, race/ethnicity and eating pathology in a treatment-seeking community sample.
Van Ryzin MJ	A prospective test of the temporal sequencing of risk factor emergence in the dual pathway model of eating disorders.
Hay P, Mond J, Bussey K, Trompeter N, Lonergan A, et al.	The distinct role of body image aspects in predicting eating disorder onset in adolescents after one year.
Shaw, H. E.	Role of body dissatisfaction in the onset and maintenance of eating pathology: a synthesis of research findings.
Toray, T.	Body image and personality predictors of eating disorder symptoms during the college years.
Johnson-Sabine, E., Wood, K., Mann, A. H., & Wakeling, A.	Abnormal eating attitudes in London schoolgirlsa prospective epidemiological study: outcome at twelve month follow-up.
Koerner, J., & Paxton, S.J.	Longitudinal Predictors of Restrictive Eating and Bulimic Tendencies in Three Different Age Groups of Adolescent Girls.
Camargo, C. A., Jr, Taylor, C. B., Berkey, C. S., & Colditz, G. A.	Relation of peer and media influences to the development of purging behaviors among preadolescent and adolescent girls.

Literature Review - APA Publication Cite

Gorrell S, Grange DL, Blalock DV, Mehler PS, Johnson C, Manwaring J, et al. Gender identity, race/ethnicity and eating pathology in a treatment-seeking community sample. J Behav Cogn Ther. 2021;31(1):77–89

Stice E, Van Ryzin MJ. A prospective test of the temporal sequencing of risk factor emergence in the dual pathway model of eating disorders. J Abnorm Psychol. 2019;128(2):119–28.

Prnjak K, Hay P, Mond J, Bussey K, Trompeter N, Lonergan A, et al. The distinct role of body image aspects in predicting eating disorder onset in adolescents after one year. J Abnorm Psychol. 2021;130(3):236–47.

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Cooley, E., & Toray, T. (2001). Body image and personality predictors of eating disorder symptoms during the college years. The International journal of eating disorders, 30(1), 28–36. https://doi.org/10.1002/eat.1051

Patton, G. C., Johnson-Sabine, E., Wood, K., Mann, A. H., & Wakeling, A. (1990). Abnormal eating attitudes in London schoolgirls--a prospective epidemiological study: outcome at twelve month follow-up. Psychological medicine, 20(2), 383–394. https://doi.org/10.1017/s0033291700017700

Wertheim, E.H., Koerner, J., & Paxton, S.J. (2001). Longitudinal Predictors of Restrictive Eating and Bulimic Tendencies in Three Different Age Groups of Adolescent Girls. Journal of Youth and Adolescence, 30, 69-81.

Field, A. E., Camargo, C. A., Jr, Taylor, C. B., Berkey, C. S., & Colditz, G. A. (1999). Relation of peer and media influences to the development of purging behaviors among preadolescent and adolescent girls. Archives of pediatrics & adolescent medicine, 153(11), 1184–1189. https://doi.org/10.1001/archpedi.153.11.1184

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	International Journal of Eating	
1994	Disorders	Killen, J. D.
1996	Journal of Consulting and Clinical Psychology	Killen, J. D.
1770	ennical i sychology	Territori, v. D.
2001	Journal of Abnormal Psychology	Stice, E.
	, <u>, , , , , , , , , , , , , , , , , , </u>	,
	Journal of Youth and	
1999	Adolescence	Leon, G. R.
	International Journal of Eating	
2000	Disorders	Wichstrom, L.
1998	Behavior Therapy	Stice, E.

Literature Review - Other Authors	Literature Review - Article NameTitle
Taylor, C. B., Hayward, C., Wilson, D. M., Haydel, K. F., Hammer, L. D., Simmonds, B., Robinson, T. N., Litt, I., & Varady, A.	Pursuit of thinness and onset of eating disorder symptoms in a community sample of adolescent girls: a three-year prospective analysis.
Taylor, C. B., Hayward, C., Haydel, K. F., Wilson, D. M., Hammer, L., Kraemer, H., Blair- Greiner, A., & Strachowski, D.	Weight concerns influence the development of eating disorders: a 4-year prospective study. A prospective test of the dual-pathway model of bulimic pathology: mediating effects of dieting and
N/A N/A	Three to four year prospective evaluation of personality and behavioral risk factors for later disordered eating in adolescent girls and boys.
N/A	Psychological and behavioral factors unpredictive of disordered eating: a prospective study of the general adolescent population in Norway.
Agras, W. S.	Predicting onset and cessation bulimic behaviors during adolescence: A longitudinal grouping analysis.

Literature Review - APA Publication Cite

Killen, J. D., Taylor, C. B., Hayward, C., Wilson, D. M., Haydel, K. F., Hammer, L. D., Simmonds, B., Robinson, T. N., Litt, I., & Varady, A. (1994). Pursuit of thinness and onset of eating disorder symptoms in a community sample of adolescent girls: a three-year prospective analysis. The International journal of eating disorders, 16(3), 227–238. https://doi.org/10.1002/1098-108x(199411)16:3<227::aid-eat2260160303>3.0.co;2-1

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Stice E. (2001). A prospective test of the dual-pathway model of bulimic pathology: mediating effects of dieting and negative affect. Journal of abnormal psychology, 110(1), 124–135. https://doi.org/10.1037//0021-843x.110.1.124

Leon, G. R., Fulkerson, J. A., Perry, C. L., Keel, P. K., & Klump, K. L. (1999). Three to four year prospective evaluation of personality and behavioral risk factors for later disordered eating in adolescent girls and boys. Journal of Youth and Adolescence, 28(2), 181–196. https://doi.org/10.1023/A:1021649314458

Wichstrøm, L. (2000). Psychological and behavioral factors unpredictive of disordered eating: a prospective study of the general adolescent population in Norway. The International journal of eating disorders, 28(1), 33–42. https://doi.org/10.1002/(sici)1098-108x(200007)28:1<33::aideat5>3.0.co;2-h

Stice, E., & Agras, W. S. (1998). Predicting onset and cessation bulimic behaviors during adolescence: A longitudinal grouping analysis. Behavior Therapy, 29(2), 257–276.

https://doi.org/10.1016/S0005-7894(98)80006-3

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
1997	European Psychiatry	Sheehan, D.V.
	Spanish Journal of Psychiatry	,
2023	and Mental Health	Palma-Álvarez, R. F.
	The Journal of Clinical	
1998	Psychiatry	Sheehan, D. V.
2023	Psychological Medicine	Korte, K. J.
2018	BMC Family Practice	Pettersson, A.

Literature Review - Other Authors	Literature Review - Article NameTitle
Lecrubier, Y., Sheehan, K. H., Janavs, J., Weiller, E., Keskiner, A., Schinka, J., Knapp, E., Sheehan, M. F., & Dunbar, G. C.	The validity of the Mini International Neuropsychiatric Interview (MINI) according to the SCID-P and its reliability.
Barta, C., Carpentier, P. J., Carruthers, S., Crunelle, C. L., Demetrovics, Z., Dom, G., Faraone, S. V., Franck, J., Johnson, B., Kapitány-Fövény, M., Kaye, S., Konstenius, M., Matthys, F., Moggi, F., Møller, M., Schellekens, A., Skutle, A., van de Glind, G., van Emmerik- van Oortmerssen, K., IASP Research Group	The validity of the ADHD module of the Mini International Neuropsychiatric Interview PLUS for screening of adult ADHD in treatment seeking substance use disorder patients: ADHD screening with MINI-Plus.
Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., Hergueta, T., Baker, R., & Dunbar, G. C.	The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10.
Jaguga, F., Kim, H. H., Stroud, R. E., Stevenson, A., Akena, D., Atwoli, L., Gichuru, S., James, R., Kwobah, E., Kariuki, S. M., Kyebuzibwa, J., Mwema, R. M., Newton, C. R. J. C., Zingela, Z., Stein, D. J., Alemayehu, M., Teferra, S., Koenen, K. C., & Gelaye, B.	Psychometric properties of the mini international neuropsychiatric interview (MINI) psychosis module: a Sub-Saharan Africa cross country comparison.
Modin, S., Wahlström, R., Af Winklerfelt Hammarberg, S., & Krakau, I.	The Mini-International Neuropsychiatric Interview is useful and well accepted as part of the clinical assessment for depression and anxiety in primary care: a mixed-methods study.

Literature Review - APA Publication Cite

Sheehan, D.V., Lecrubier, Y., Sheehan, K. H., Janavs, J., Weiller, E., Keskiner, A., Schinka, J., Knapp, E., Sheehan, M. F., & Dunbar, G. C. (1997). The validity of the Mini International Neuropsychiatric Interview (MINI) according to the SCID-P and its reliability. European Psychiatry, 12(5), 232–241. https://doi.org/10.1016/S0924-9338(97)83297-X

Palma-Álvarez, R. F., Barta, C., Carpentier, P. J., Carruthers, S., Crunelle, C. L., Demetrovics, Z., Dom, G., Faraone, S. V., Franck, J., Johnson, B., Kapitány-Fövény, M., Kaye, S., Konstenius, M., Matthys, F., Moggi, F., Møller, M., Schellekens, A., Skutle, A., van de Glind, G., van Emmerik-van Oortmerssen, K., ... IASP Research Group (2023). Validity of the ADHD module of the Mini International Neuropsychiatric Interview PLUS for screening of adult ADHD in treatment seeking substance use disorder patients: ADHD screening with MINI-Plus. Spanish Journal of Psychiatry and Mental Health, 16(1), 11–15. https://doi.org/10.1016/j.rpsm.2020.04.013

Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., Hergueta, T., Baker, R., & Dunbar, G. C. (1998). The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. The Journal of clinical psychiatry, 59 Suppl 20, 22–57.

Korte, K. J., Jaguga, F., Kim, H. H., Stroud, R. E., Stevenson, A., Akena, D., Atwoli, L., Gichuru, S., James, R., Kwobah, E., Kariuki, S. M., Kyebuzibwa, J., Mwema, R. M., Newton, C. R. J. C., Zingela, Z., Stein, D. J., Alemayehu, M., Teferra, S., Koenen, K. C., & Gelaye, B. (2023). Psychometric properties of the mini international neuropsychiatric interview (MINI) psychosis module: a Sub-Saharan Africa cross country comparison. Psychological Medicine, 53(15), 7042–7052. https://doi.org/10.1017/S0033291723000296

Pettersson, A., Modin, S., Wahlström, R., Af Winklerfelt Hammarberg, S., & Krakau, I. (2018). The Mini-International Neuropsychiatric Interview is useful and well accepted as part of the clinical assessment for depression and anxiety in primary care: a mixed-methods study. BMC family practice, 19(1), 19. https://doi.org/10.1186/s12875-017-0674-5

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2010	The Journal of Clinical Psychiatry	Sheehan, D. V.
2010	1 Sychiatry	Shechan, D. V.
2018	Psychological Assessment	Duncan, L.
2019	BMC Psychiatry	Högberg, C.
2008	The Guilford Press	Fairburn, C. G.
2008	The Gumora Fress	Panoun, C. O.
	The International Journal of	
2012	Eating Disorders	Berg, K. C.
	The International Journal of	
1987	Eating Disorders	Cooper, Z.

Literature Review - Other Authors	Literature Review - Article NameTitle
Sheehan, K. H., Shytle, R. D., Janavs, J., Bannon, Y., Rogers, J. E., Milo, K. M., Stock, S. L., & Wilkinson, B.	Reliability and validity of the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID).
Georgiades, K., Wang, L., Van Lieshout, R. J., MacMillan, H. L., Ferro, M. A., Lipman, E. L., Szatmari, P., Bennett, K., Kata, A., Janus, M., & Boyle, M. H.	Psychometric evaluation of the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID).
Billstedt, E., Björck, C., Björck, P. O., Ehlers, S., Gustle, L. H., Hellner, C., Höök, H., Serlachius, E., Svensson, M. A., & Larsson, J. O.	Diagnostic validity of the MINI-KID disorder classifications in specialized child and adolescent psychiatric outpatient clinics in Sweden.
Cooper, Z., & O'Connor, M.	Cognitive behavior therapy and eating disorders.
Peterson, C. B., Frazier, P., & Crow, S. J.	Psychometric evaluation of the eating disorder examination and eating disorder examination-questionnaire: a systematic review of the literature.
Fairburn, C.	The eating disorder examination: A semi-structured interview for the assessment of the specific psychopathology of eating disorders.

Literature Review - APA Publication Cite

Sheehan, D. V., Sheehan, K. H., Shytle, R. D., Janavs, J., Bannon, Y., Rogers, J. E., Milo, K. M., Stock, S. L., & Wilkinson, B. (2010). Reliability and validity of the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID). The Journal of clinical psychiatry, 71(3), 313–326. https://doi.org/10.4088/JCP.09m05305whi

Duncan, L., Georgiades, K., Wang, L., Van Lieshout, R. J., MacMillan, H. L., Ferro, M. A., Lipman, E. L., Szatmari, P., Bennett, K., Kata, A., Janus, M., & Boyle, M. H. (2018). Psychometric evaluation of the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID). Psychological assessment, 30(7), 916–928. https://doi.org/10.1037/pas0000541

Högberg, C., Billstedt, E., Björck, C., Björck, P. O., Ehlers, S., Gustle, L. H., Hellner, C., Höök, H., Serlachius, E., Svensson, M. A., & Larsson, J. O. (2019). Diagnostic validity of the MINI-KID disorder classifications in specialized child and adolescent psychiatric outpatient clinics in Sweden. BMC Psychiatry, 19(1), 142. https://doi.org/10.1186/s12888-019-2121-8

Fairburn, C.G., Cooper, Z., & O'Connor, M. (2008). Eating Disorder Examination (16.0D). Cognitive Behavior Therapy and Eating Disorders. New York: Guilford Press.

Berg, K. C., Peterson, C. B., Frazier, P., & Crow, S. J. (2012). Psychometric evaluation of the eating disorder examination and eating disorder examination-questionnaire: a systematic review of the literature. The International Journal of Eating Disorders, 45(3), 428–438. https://doi.org/10.1002/eat.20931

Cooper, Z., & Fairburn, C. (1987). The Eating Disorder Examination: A semi-structured interview for the assessment of the specific psychopathology of eating disorders. International Journal of Eating Disorders, 6(1), 1–8. https://doi.org/10.1002/1098-108X(198701)6:1<1::AID-EAT2260060102>3.0.CO;2-9

Literature		
Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2011	Psychological Assessment	Berg, K. C.
	•	G.
	Psychotherapy and	
2013	Psychosomatics	Dalle Grave, R.,
	Journal of the American	
2016	Academy of Child and Adolescent Psychiatry	Le Grange, D.
2010	radicsectic 1 Sycillary	Le Grange, D.
2007	Archives of General Psychiatry	Le Grange, D.
	Journal of the American	
2015	Academy of Child and Adolescent Psychiatry	Le Grange, D.
2013	Adolescent I sychiatry	Le Grange, D.
	Journal of the American	
2014	Academy of Child and Adolescent Psychiatry	Le Grange, D.
2017	1 10010000111 1 byollian y	Lo Grango, D.

Literature Review - Other Authors	Literature Review - Article NameTitle
Peterson, C. B., Frazier, P., & Crow, S. J.	Convergence of scores on the interview and questionnaire versions of the Eating Disorder Examination: a meta-analytic review.
Calugi, S., Conti, M., Doll, H., & Fairburn, C. G.	Inpatient cognitive behaviour therapy for anorexia nervosa: a randomized controlled trial.
Hughes, E. K., Court, A., Yeo, M., Crosby, R. D., & Sawyer, S. M.	Randomized Clinical Trial of Parent-Focused Treatment and Family-Based Treatment for Adolescent Anorexia Nervosa.
Crosby, R. D., Rathouz, P. J., & Leventhal, B. L.	A randomized controlled comparison of family- based treatment and supportive psychotherapy for adolescent bulimia nervosa.
Lock, J., Agras, W. S., Bryson, S. W., & Jo, B.	Randomized Clinical Trial of Family-Based Treatment and Cognitive-Behavioral Therapy for Adolescent Bulimia Nervosa.
Lock, J., Accurso, E. C., Agras, W. S., Darcy, A., Forsberg, S., & Bryson, S. W.	Le Grange, D., Lock, J., Accurso, E. C., Agras, W. S., Darcy, A., Forsberg, S., & Bryson, S. W. (2014). Relapse from remission at two- to four-year follow-up in two treatments for adolescent anorexia nervosa. Journal of the American Academy of Child and Adolescent Psychiatry, 53(11), 1162–1167. https://doi.org/10.1016/j.jaac.2014.07.014

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Berg, K. C., Peterson, C. B., Frazier, P., & Crow, S. J. (2011). Convergence of scores on the interview and questionnaire versions of the Eating Disorder Examination: a meta-analytic review. Psychological Assessment, 23(3), 714–724. https://doi.org/10.1037/a0023246

Dalle Grave, R., Calugi, S., Conti, M., Doll, H., & Fairburn, C. G. (2013). Inpatient cognitive behaviour therapy for anorexia nervosa: a randomized controlled trial. Psychotherapy and Psychosomatics, 82(6), 390–398. https://doi.org/10.1159/000350058

Le Grange, D., Hughes, E. K., Court, A., Yeo, M., Crosby, R. D., & Sawyer, S. M. (2016). Randomized Clinical Trial of Parent-Focused Treatment and Family-Based Treatment for Adolescent Anorexia Nervosa. Journal of the American Academy of Child and Adolescent Psychiatry, 55(8), 683–692. https://doi.org/10.1016/j.jaac.2016.05.007

Le Grange, D., Crosby, R. D., Rathouz, P. J., & Leventhal, B. L. (2007). A randomized controlled comparison of family-based treatment and supportive psychotherapy for adolescent bulimia nervosa. Archives of General Psychiatry, 64(9), 1049–1056. https://doi.org/10.1001/archpsyc.64.9.1049

Le Grange, D., Lock, J., Agras, W. S., Bryson, S. W., & Jo, B. (2015). Randomized Clinical Trial of Family-Based Treatment and Cognitive-Behavioral Therapy for Adolescent Bulimia Nervosa. Journal of the American Academy of Child and Adolescent Psychiatry, 54(11), 886–94.e2.

https://doi.org/10.1016/j.jaac.2015.08.008

Le Grange, D., Lock, J., Accurso, E. C., Agras, W. S., Darcy, A., Forsberg, S., & Bryson, S. W. (2014). Relapse from remission at two- to four-year follow-up in two treatments for adolescent anorexia nervosa. Journal of the American Academy of Child and Adolescent Psychiatry, 53(11), 1162–1167. https://doi.org/10.1016/j.jaac.2014.07.014

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
Tour		
2021	The International Journal of Eating Disorders	Lock, J.
2010	Archives of General Psychiatry	Lock, J.
1004	The International Journal of	
1994	Eating Disorders	Fairburn, C. G.
2019	Psychological Assessment	Carey, M.
	Behavior Research and	
2004	Therapy	Mond, J. M.,
2020	Eating Behaviors	Nagata, J. M.
	Behavior Research and	
2001	Therapy	Carter, J. C.

Literature Review - Other Authors	Literature Review - Article NameTitle
Couturier, J., Matheson, B. E., Datta, N., Citron, K., Sami, S., Welch, H., Webb, C., Doxtdator, K., & John-Carson, N.	Feasibility of conducting a randomized controlled trial comparing family-based treatment via videoconferencing and online guided self-help family-based treatment for adolescent anorexia nervosa.
Le Grange, D., Agras, W. S., Moye, A., Bryson, S. W., & Jo,	Randomized clinical trial comparing family-based treatment with adolescent-focused individual
В.	therapy for adolescents with anorexia nervosa.
Beglin, S. J.	Assessment of eating disorders: interview or self-report questionnaire?.
Kupeli, N., Knight, R., Troop, N. A., Jenkinson, P. M., & Preston, C.	Eating Disorder Examination Questionnaire (EDE-Q): Norms and psychometric properties in U.K. females and males.
Hay, P. J., Rodgers, B., Owen, C., & Beumont, P. J.	Validity of the Eating Disorder Examination Questionnaire (EDE-Q) in screening for eating disorders in community samples.
Murray, S. B., Compte, E. J., Pak, E. H., Schauer, R., Flentje,	
A., Capriotti, M. R., Lubensky,	Murray, S. B., Compte, E. J., Pak, E. H., Schauer,
M. E., Lunn, M. R., & Obedin-Maliver, J.	R., Flentje, A., Capriotti, M. R., Lubensky, M. E., Lunn, M. R., & Obedin-Maliver, J.
Stewart, D. A., & Fairburn, C. G.	Eating disorder examination questionnaire: norms for young adolescent girls.

Literature Review - APA Publication Cite

Lock, J., Couturier, J., Matheson, B. E., Datta, N., Citron, K., Sami, S., Welch, H., Webb, C., Doxtdator, K., & John-Carson, N. (2021). Feasibility of conducting a randomized controlled trial comparing family-based treatment via videoconferencing and online guided self-help family-based treatment for adolescent anorexia nervosa. The International Journal of Eating Disorders, 54(11), 1998–2008. https://doi.org/10.1002/eat.23611

Lock, J., Le Grange, D., Agras, W. S., Moye, A., Bryson, S. W., & Jo, B. (2010). Randomized clinical trial comparing family-based treatment with adolescent-focused individual therapy for adolescents with anorexia nervosa. Archives of General Psychiatry, 67(10), 1025–1032.

https://doi.org/10.1001/archgenpsychiatry.2010.128

Fairburn, C. G., & Beglin, S. J. (1994). Assessment of eating disorders: interview or self-report questionnaire?. The International Journal of Eating Disorders, 16(4), 363–370.

Carey, M., Kupeli, N., Knight, R., Troop, N. A., Jenkinson, P. M., & Preston, C. (2019). Eating Disorder Examination Questionnaire (EDE-Q): Norms and psychometric properties in U.K. females and males. Psychological Assessment, 31(7), 839–850. https://doi.org/10.1037/pas0000703

Mond, J. M., Hay, P. J., Rodgers, B., Owen, C., & Beumont, P. J. (2004). Validity of the Eating Disorder Examination Questionnaire (EDE-Q) in screening for eating disorders in community samples. Behaviour Research and Therapy, 42(5), 551–567. https://doi.org/10.1016/S0005-7967(03)00161-X

Nagata, J. M., Murray, S. B., Compte, E. J., Pak, E. H., Schauer, R., Flentje, A., Capriotti, M. R., Lubensky, M. E., Lunn, M. R., & Obedin-Maliver, J. (2020). Community norms for the Eating Disorder Examination Questionnaire (EDE-Q) among transgender men and women. Eating Behaviors, 37, 101381. https://doi.org/10.1016/j.eatbeh.2020.101381

Carter, J. C., Stewart, D. A., & Fairburn, C. G. (2001). Eating disorder examination questionnaire: norms for young adolescent girls. Behaviour Research and Therapy, 39(5), 625–632. https://doi.org/10.1016/s0005-7967(00)00033-4

Literature		
Review - Year	Literature Review - Journal	Literature Review - Lead Author
2017	Archives of Psychiatric Nursing	Jennings, K. M.
2017	Training	00mmg9, 11 111
2010	Eating Behaviors	Lavender, J. M.
2008	Journal of Eating Disorders	Luce, K. H.
1982	Addictive Behaviors	Gormally, J.
2023	Journal of Eating Disorders	Yan, H. Y.
	The International Journal of	
2016	Eating Disorders	Burton, A. L.
2015	Eating Behaviors	Duarte, C.
2021	Journal of Eating Disorders	Mina, A.

Literature Review - Other Authors	Literature Review - Article NameTitle
Dhilling V. E	Eating Disorder Examination—Questionnaire (EDE–Q): Norms for clinical sample of female adolescents with anorexia nervosa.
Phillips, K. E.	adolescents with anorexia nervosa.
De Young, K. P., & Anderson, D. A.	Eating Disorder Examination Questionnaire (EDE-Q): norms for undergraduate men.
Crowther, J. H. & Pole, M.	Eating disorder examination questionnaire (EDE-Q): Norms for undergraduate women.
Black, S., Daston, S., & Rardin, D.	The assessment of binge eating severity among obese persons.
Lin, F. G., Tseng, M. M., Fang,	The psychometric properties of Binge Eating Scale
Y. L., & Lin, H. R. Abbott, M. J., Modini, M., & Touyz, S.	among overweight college students in Taiwan. Psychometric evaluation of self-report measures of binge-eating symptoms and related psychopathology: A systematic review of the literature.
Pinto-Gouveia, J., & Ferreira, C.	Expanding binge eating assessment: Validity and screening value of the Binge Eating Scale in women from the general population.
Hallit, S., Rogoza, R., Obeid, S., & Soufia, M.	Binge eating behavior in a sample of Lebanese Adolescents: Correlates and Binge Eating Scale validation.

Literature Review - APA Publication Cite

Jennings, K. M., & Phillips, K. E. (2017). Eating Disorder Examination—Questionnaire (EDE—Q): Norms for clinical sample of female adolescents with anorexia nervosa. Archives of Psychiatric Nursing, 31(6), 578–581. https://doi.org/10.1016/j.apnu.2017.08.002

Lavender, J. M., De Young, K. P., & Anderson, D. A. (2010). Eating Disorder Examination Questionnaire (EDE-Q): norms for undergraduate men. Eating Behaviors, 11(2), 119–121. https://doi.org/10.1016/j.eatbeh.2009.09.005

Luce, K. H., Crowther, J. H., & Pole, M. (2008). Eating disorder examination questionnaire (EDE-Q): Norms for undergraduate women. International Journal of Eating Disorders, 41(3), 273-276.

Gormally, J., Black, S., Daston, S., & Rardin, D. (1982). The assessment of binge eating severity among obese persons. Addictive Behaviors, 7(1), 47–55. https://doi.org/10.1016/0306-4603(82)90024-7

Yan, H. Y., Lin, F. G., Tseng, M. M., Fang, Y. L., & Lin, H. R. (2023). The psychometric properties of Binge Eating Scale among overweight college students in Taiwan. Journal of Eating Disorders, 11(1), 47. https://doi.org/10.1186/s40337-023-00774-3

Burton, A. L., Abbott, M. J., Modini, M., & Touyz, S. (2016). Psychometric evaluation of self-report measures of binge-eating symptoms and related psychopathology: A systematic review of the literature. The International Journal of Eating Disorders, 49(2), 123–140. https://doi.org/10.1002/eat.22453

Duarte, C., Pinto-Gouveia, J., & Ferreira, C. (2015). Expanding binge eating assessment: Validity and screening value of the Binge Eating Scale in women from the general population. Eating behaviors, 18, 41–47. https://doi.org/10.1016/j.eatbeh.2015.03.007

Mina, A., Hallit, S., Rogoza, R., Obeid, S., & Soufia, M. (2021). Binge eating behavior in a sample of Lebanese Adolescents: Correlates and Binge Eating Scale validation. Journal of eating disorders, 9(1), 134. https://doi.org/10.1186/s40337-021-00493-7

Literature		
Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	The International Investigation	
2003	The International Journale of Eating Disorders	Isnard, P.
2003	Dating Disorders	
	Psychology Research and	
2024	Behavior Management	Yan, W. S.
	Revista da Associação	
	Brasileira de Nutrição -	
2021	RASBRAN	Escobar, M.
2000		DI ::11: 17
2009	Oxford University Press	Phillips, K. A.
2004	World Psychiatry	Phillips, K. A.
		_
2018	Psychological Medicine	Enander, J.
1995	APA PscyTests.	Lovibond, S. H.
2015	European Journal of Pediatrics	Mellor, D.

Literature Review - Other Authors	Literature Review - Article NameTitle
Michel, G., Frelut, M. L., Vila, G., Falissard, B., Naja, W., Navarro, J., & Mouren-Simeoni, M. C.	Binge eating and psychopathology in severely obese adolescents.
Liu, S. J., & Liu, M. M.	Validation and Psychometric Properties of the Chinese Version of the Binge Eating Scale in Young Adults.
Franzosi, O. S., Coelho, n., Halpern, S. C., Scherer, J. N., Ornell, F., Mendes-Cereser, K. M., & Da Rocha, N. S.	Instruments and Diagnostic Criteria for Binge Eating Assessment in Adults: A Systematic Review. Understanding body dysmorphic disorder: An essential guide. Oxford University Press.
N/A	Body dysmorphic disorder: recognizing and treating imagined ugliness.
Ivanov, V. Z., Mataix-Cols, D., Kuja-Halkola, R., Ljótsson, B., Lundström, S., Pérez-Vigil, A., Monzani, B., Lichtenstein, P., & Rück, C.	Prevalence and heritability of body dysmorphic symptoms in adolescents and young adults: a population-based nationwide twin study.
Lovibond, P. F.	Depression Anxiety Stress Scales (DASS21, DASS42)
Vinet, E. V., Xu, X., Bt Mamat, N. H., Richardson, B., & Román, F.	Factorial invariance of the DASS-21 among adolescents in four countries.

Literature Review - APA Publication Cite

Isnard, P., Michel, G., Frelut, M. L., Vila, G., Falissard, B., Naja, W., Navarro, J., & Mouren-Simeoni, M. C. (2003). Binge eating and psychopathology in severely obese adolescents. The International journal of eating disorders, 34(2), 235–243. https://doi.org/10.1002/eat.10178

Yan, W. S., Liu, S. J., & Liu, M. M. (2024). Validation and Psychometric Properties of the Chinese Version of the Binge Eating Scale in Young Adults. Psychology Research and Behavior Management, 17, 1611–1624.

https://doi.org/10.2147/PRBM.S456275

Escobar, M., Franzosi, O. S., Coelho, n., Halpern, S. C., Scherer, J. N., Ornell, F., Mendes-Cereser, K. M., & Da Rocha, N. S. (2021). Instruments and Diagnostic Criteria for Binge Eating Assessment in Adults: A Systematic Review. Revista da Associação Brasileira de Nutrição - RASBRAN. 12. 242-259. 10.47320/rasbran.2021.1343.

Phillips, K. A. (2009). Understanding body dysmorphic disorder: An essential guide. Oxford University Press.

Phillips K. A. (2004). Body dysmorphic disorder: recognizing and treating imagined ugliness. World psychiatry: official journal of the World Psychiatric Association (WPA), 3(1), 12–17.

Enander, J., Ivanov, V. Z., Mataix-Cols, D., Kuja-Halkola, R., Ljótsson, B., Lundström, S., Pérez-Vigil, A., Monzani, B., Lichtenstein, P., & Rück, C. (2018). Prevalence and heritability of body dysmorphic symptoms in adolescents and young adults: a population-based nationwide twin study. Psychological medicine, 48(16), 2740–2747. https://doi.org/10.1017/S0033291718000375

Lovibond, S. H., & Lovibond, P. F. (1995). Depression Anxiety Stress Scales (DASS--21, DASS--42) [Database record]. APA PsycTests.

Mellor, D., Vinet, E. V., Xu, X., Bt Mamat, N. H., Richardson, B., & Román, F. (2015). Factorial invariance of the DASS-21 among adolescents in four countries. European Journal of Psychological Assessment, 31(2), 138–142. https://doi.org/10.1027/1015-5759/a000218

Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2017	Journal of Clinical Psychology	Shaw, T.
2017	PLOS One	Le, M. T. H.
2024	Child & Youth Care Forum	Dwight, A. R.
2001	Journal of General Internal Medicine	Kroenke, K.
2001		
2023	Psychiatry Research	Fonseca-Pedrero, E.
2010	Pediatrics	Richardson, L. P.
2020	Addictive Behaviors	Leung, H.

Literature Review - Other Authors	Literature Review - Article NameTitle
Campbell, M. A., Runions, K. C., & Zubrick, S. R.	Properties of the DASS-21 in an Australian Community Adolescent Population.
Tran, T. D., Holton, S., Nguyen, H. T., Wolfe, R., & Fisher, J.	Reliability, convergent validity and factor structure of the DASS-21 in a sample of Vietnamese adolescents.
Briesch, A. M., Hoffman, J. A., & Rutt, C.	Systematic review of the psychometric evidence supporting use of the Depression Anxiety Stress Scales, Short Form (DASS-21) with youth.
N/A	The PHQ-9: validity of a brief depression severity measure.
Díez-Gómez, A., Pérez-Albéniz, A., Al-Halabí, S., Lucas-Molina, B., & Debbané, M.	Youth screening depression: Validation of the Patient Health Questionnaire-9 (PHQ-9) in a representative sample of adolescents.
McCauley, E., Grossman, D. C., McCarty, C. A., Richards, J., Russo, J. E., Rockhill, C., & Katon, W.	Evaluation of the Patient Health Questionnaire-9 Item for detecting major depression among adolescents.
Pakpour, A. H., Strong, C., Lin, Y. C., Tsai, M. C., Griffiths, M. D., Lin, C. Y., & Chen, I. H.	Measurement invariance across young adults from Hong Kong and Taiwan among three internet-related addiction scales: Bergen Social Media Addiction Scale (BSMAS), Smartphone Application-Based Addiction Scale (SABAS), and Internet Gaming Disorder Scale-Short Form (IGDS-SF9) (Study Part A).

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Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
2018	Revista medica de Chile	Borghero, F.
2010	10 vista inodica de Cime	Borghero, T.
2011	Cognitive Behaviour Therapy	Titov, N.
2016	Journal of Affective Disorders	Beard, C.
	Journal of Autism and	
2020	Developmental Disorders	Arnold, S. R. C.
	Journal of the American Academy of Child and	
1997	Adolescent Psychiatry	Birmaher, B.
	Journal of the American Academy of Child and	
1999	Adolescent Psychiatry	Birmaher, B.

Literature Review - Other Authors	Literature Review - Article NameTitle
Martínez, V., Zitko, P., Vöhringer, P. A., Cavada, G., &	Screening depressive episodes in adolescents. Validation of the Patient Health Questionnaire-9
Rojas, G.	(PHQ-9)
Dear, B. F., McMillan, D., Anderson, T., Zou, J., & Sunderland, M.	Psychometric comparison of the PHQ-9 and BDI-II for measuring response during treatment of depression.
Hsu, K. J., Rifkin, L. S., Busch, A. B., & Björgvinsson, T.	Validation of the PHQ-9 in a psychiatric sample.
Uljarević, M., Hwang, Y. I., Richdale, A. L., Trollor, J. N., & Lawson, L. P.	Brief Report: Psychometric Properties of the Patient Health Questionaire-9 (PHQ-9) in Autistic Adults.
Khetarpal, S., Brent, D., Cully, M., Balach, L., Kaufman, J., & Neer, S. M.	The Screen for Child Anxiety Related Emotional Disorders (SCARED): scale construction and psychometric characteristics.
Brent, D. A., Chiappetta, L., Bridge, J., Monga, S., &	Psychometric properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED):
Baugher, M.	a replication study.

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Literature Review - Year	Literature Review - Journal	Literature Review - Lead Author
	Child Psychiatry and Human	
2016	Development	Arab, A.
2016	Computers in Human Behavior	van den Eijnden, R. J. J. M.
2022	Addiction	Boer, M.
	Psychology Research and	
2019	Behavior Management	Fung S. F.
2022	Assessment	Boer, M.
	International Journal of Eating	
2014	Disorders	Mabe, A.G.
2022	Body Image	Maes, C
2023	Journal of Behavior Therapy and Experimental Psychiatry	Mahalingham, T.

Literature Review - Other Authors	Literature Review - Article NameTitle
El Keshky, M., & Hadwin, J. A.	Psychometric Properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED) in a Non-Clinical Sample of Children and Adolescents in Saudi Arabia.
Lemmens, J. S., & Valkenburg, P. M.	The Social Media Disorder Scale.
van den Eijnden, R. J. J. M., Finkenauer, C., Boniel-Nissim, M., Marino, C., Inchley, J., Cosma, A., Paakkari, L., & Stevens, G. W. J. M.	Cross-national validation of the social media disorder scale: findings from adolescents from 44 countries.
N/A	Cross-cultural validation of the Social Media Disorder scale.
Stevens, G. W.J.M., Finkenauer, C., Koning, I. M., & van den Eijnden, R.J.J.M.nt, 29(8), 1658-75.	Validation of the Social Media Disorder Scale in Adolescents: Findings from a Large-Scale Nationally Representative Sample.
Forney, K. J., & Keel, P. K	Do you "like" my photo? Facebook use maintains eating disorder risk.
Vandenbosch, L.	Adolescent girls' Instagram and TikTok use: Examining relations with body image-related constructs over time using random intercept cross- lagged panel models
Howell, J., & Clarke, P. J. F.	Assessing the effects of acute reductions in mobile device social media use on anxiety and sleep

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van den Eijnden, R. J. J. M., Lemmens, J. S., & Valkenburg, P. M. (2016) The Social Media Disorder Scale. Computers in Human Behavior, 61, 478-487.

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Mabe, A. G., Forney, K. J., & Keel, P. K. (2014). Do you "like" my photo? Facebook use maintains eating disorder risk. The International journal of eating disorders, 47(5), 516–523. https://doi.org/10.1002/eat.22254

Maes, C., & Vandenbosch, L. (2022). Adolescent girls' Instagram and TikTok use: Examining relations with body image-related constructs over time using random intercept cross-lagged panel models. Body image, 41, 453–459.

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Mahalingham, T., Howell, J., & Clarke, P. J. F. (2023). Assessing the effects of acute reductions in mobile device social media use on anxiety and sleep. Journal of behavior therapy and experimental psychiatry, 78, 101791.

https://doi.org/10.1016/j.jbtep.2022.101791

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Year		
2022	Body Image	Manning, T. M.
2021	Dody Imaga	McComb S E
2021	Body Image	McComb, S. E.
2021	Body Image	McComb, S. E.
	The International Journal of	
2015	Eating Disorders	McLean, S. A.
	Cyberpsychology, Behavior	
2014	and Social Networking	Meier, E. P.
2022	Behavioral Sciences	Mesce, M.
2022	Denavioral Sciences	1110500, 111.
2017	Frontiers in Psychology	Mingoia, J.
2024	BMC Public Health	Nagata I M
2024	DIVIC I UDIIC HEAIUI	Nagata, J. M.

Literature Review - Other Authors	Literature Review - Article NameTitle
Mulgrew, K. E.	Broad conceptualisations of beauty do not moderate women's responses to body positive content on instagram.
Mills, J. S.	Young women's body image following upwards comparison to Instagram models: The role of physical appearance perfectionism and cognitive emotion regulation.
Gobin, K. C., & Mills, J. S.	The effects of self-disclaimer Instagram captions on young women's mood and body image: The moderating effect of participants' own photo manipulation practices.
Paxton, S. J., Wertheim, E. H., & Masters, J.	Photoshopping the selfie: Self photo editing and photo investment are associated with body dissatisfaction in adolescent girls.
Gray, J.	Facebook photo activity associated with body image disturbance in adolescent girls
Cerniglia, L., & Cimino, S.	Body Image Concerns: The Impact of Digital Technologies and Psychopathological Risks in a Normative Sample of Adolescents.
Hutchinson, A. D., Wilson, C., & Gleaves, D. H.	The Relationship between Social Networking Site Use and the Internalization of a Thin Ideal in Females: A Meta-Analytic Review
Al-Shoaibi, A. A. A., Leong, A. W., Zamora, G., Testa, A., Ganson, K. T., & Baker, F. C.	Screen time and mental health: a prospective analysis of the Adolescent Brain Cognitive Development (ABCD) Study.

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McComb, S. E., & Mills, J. S. (2021). Young women's body image following upwards comparison to Instagram models: The role of physical appearance perfectionism and cognitive emotion regulation. Body image, 38, 49–62.

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Meier, E. P., & Gray, J. (2014). Facebook photo activity associated with body image disturbance in adolescent girls. Cyberpsychology, behavior and social networking, 17(4), 199–206. https://doi.org/10.1089/cyber.2013.0305

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Nagata, J. M., Al-Shoaibi, A. A. A., Leong, A. W., Zamora, G., Testa, A., Ganson, K. T., & Baker, F. C. (2024). Screen time and mental health: a prospective analysis of the Adolescent Brain Cognitive Development (ABCD) Study. BMC public health, 24(1), 2686. https://doi.org/10.1186/s12889-024-20102-x

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Year		
	Journal of Abnormal Child	
2015	Psychology	Nesi, J.
	Journal of Clinical Child and	
	Adolescent Psychology: The	
	Official Journal for the Society of Clinical Child and	
	Adolescent Psychology,	
	American Psychological	
2022	Association	Nesi, J.
2022		5
2023	Body Image	Prichard, I.
2023	Psychology of Popular Media	Pritchard, Mary
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2022	To 1' To 1' CD 1' c'	D 1: 1
2022	Italian Journal of Pediatrics	Pruccoli, J.
2022	Body Image	Pryde, S.
2021	Journal of Technology in	D 111: A 77
2021	Behavioral Science	Przybylski, A. K.

Literature Review - Other Authors	Literature Review - Article NameTitle
Prinstein, M. J.	Using Social Media for Social Comparison and Feedback-Seeking: Gender and Popularity Moderate Associations with Depressive Symptoms
Rothenberg, W. A., Bettis, A. H., Massing-Schaffer, M., Fox, K. A., Telzer, E. H., Lindquist, K. A., & Prinstein, M. J.	Emotional Responses to Social Media Experiences Among Adolescents: Longitudinal Associations with Depressive Symptoms.
Taylor, B., & Tiggemann, M.	Comparing and self-objectifying: The effect of sexualized imagery posted by Instagram Influencers on women's body image
Button, Anna.	#Instabod Versus #BoPo: An Experimental Study of the Effects of Viewing Idealized Versus Body-Positive Content on Collegiate Males' and Females' Body Satisfaction.
De Rosa, M., Chiasso, L., Perrone, A., & Parmeggiani, A.	he use of TikTok among children and adolescents with Eating Disorders: experience in a third-level public Italian center during the SARS-CoV-2 pandemic
Prichard, I.	TikTok on the clock but the #fitspo don't stop: The impact of TikTok fitspiration videos on women's body image concerns.
Nguyen, T. V. T., Law, W., & Weinstein, N.	Does taking a short break from social media have a positive effect on well-being? Evidence from three preregistered field experiments

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Nesi, J., & Prinstein, M. J. (2015). Using Social Media for Social Comparison and Feedback-Seeking: Gender and Popularity Moderate Associations with Depressive Symptoms. Journal of abnormal child psychology, 43(8), 1427–1438. https://doi.org/10.1007/s10802-015-0020-0

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Pritchard, Mary & Button, Anna. (2023). #Instabod Versus #BoPo: An Experimental Study of the Effects of Viewing Idealized Versus Body-Positive Content on Collegiate Males' and Females' Body Satisfaction. Psychology of Popular Media. 10.1037/ppm0000454.

Pruccoli, J., De Rosa, M., Chiasso, L., Perrone, A., & Parmeggiani, A. (2022). The use of TikTok among children and adolescents with Eating Disorders: experience in a third-level public Italian center during the SARS-CoV-2 pandemic. Italian journal of pediatrics, 48(1), 138. https://doi.org/10.1186/s13052-022-01308-4

Pryde, S., & Prichard, I. (2022). TikTok on the clock but the #fitspo don't stop: The impact of TikTok fitspiration videos on women's body image concerns. Body image, 43, 244–252. https://doi.org/10.1016/j.bodyim.2022.09.004

Przybylski, A. K., Nguyen, T. V. T., Law, W., & Weinstein, N. (2021). Does taking a short break from social media have a positive effect on well-being? Evidence from three preregistered field experiments. Journal of Technology in Behavioral Science, 6, 507-514.

Literature Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
	Journal of Technology in	
2021	Behavioral Science	Przybylski, A. K.
		,
	Behaviour Research and	
2022	Therapy	Rapee, R. M.
	Journal of Youth and	
2020	Adolescence	Rodgers, R. F.
2020	, idolescence	11009010, 11.11
2017	Computers in Human Behavior	Rousseau A
2017	Comparers in Human Benevior	11.0usseud, 11.
	European Eating Disorders	
2013	Review	RunRunfola, C. D.
2013	ICVICW	Kumkumota, C. D.
2014	Computers in Human Rehavior	Sagioglou C
2014	Computers in Human Behavior	Sagioglou, C.

Literature Review - Other Authors	Literature Review - Article NameTitle
Nguyen, T. V.,, Law, W., & Weinstein, N.	Does taking a short break from social media have a positive effect on well-being? Evidence from three preregistered field experiments.
Magson, N. R., Forbes, M. K., Richardson, C. E., Johnco, C. J., Oar, E. L., & Fardouly, J.	Risk for social anxiety in early adolescence: Longitudinal impact of pubertal development, appearance comparisons, and peer connections.
Slater, A., Gordon, C. S., McLean, S. A., Jarman, H. K., & Paxton, S. J.	A Biopsychosocial Model of Social Media Use and Body Image Concerns, Disordered Eating, and Muscle-Building Behaviors among Adolescent Girls and Boys.
Eggermont, S., & Frison, E.	The reciprocal and indirect relationships between passive Facebook use, comparison on Facebook, and adolescents' body dissatisfaction.
Von Holle, A., Trace, S. E., Brownley, K. A., Hofmeier, S. M., Gagne, D. A., & Bulik, C. M.	Body dissatisfaction in women across the lifespan: results of the UNC-SELF and Gender and Body Image (GABI) studies.
Greitemeyer, T.	Facebook's emotional consequences: Why Facebook causes a decrease in mood and why people still use it

Literature Review - APA Publication Cite

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Rodgers, R. F., Slater, A., Gordon, C. S., McLean, S. A., Jarman, H. K., & Paxton, S. J. (2020). A Biopsychosocial Model of Social Media Use and Body Image Concerns, Disordered Eating, and Muscle-Building Behaviors among Adolescent Girls and Boys. Journal of youth and adolescence, 49(2), 399–409. https://doi.org/10.1007/s10964-019-01190-0

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RunRunfola, C. D., Von Holle, A., Trace, S. E., Brownley, K. A., Hofmeier, S. M., Gagne, D. A., & Bulik, C. M. (2013). Body dissatisfaction in women across the lifespan: results of the UNC-SELF and Gender and Body Image (GABI) studies. European eating disorders review: the journal of the Eating Disorders Association, 21(1), 52–59. https://doi.org/10.1002/erv.2201

Sagioglou, C., & Greitemeyer, T. (2014). Facebook's emotional consequences: Why Facebook causes a decrease in mood and why people still use it. Computers in Human Behavior, 35, 359–363. https://doi.org/10.1016/j.chb.2014.03.003

Literature		
Review -	Literature Review - Journal	Literature Review - Lead Author
Year		
2022	Frontiers in Psychology	Sagrera, C. E.
2022	1 Tollucis III I sychology	Bagicia, C. E.
2019	Computers in Human Behavior	Saiphoo, A. N.
2020	Journal of Orthodontics	Sampson, A.
2020	Journal of Orthodonties	Sumpson, 71.
2017	Social Media + Society	Santarossa, S.
2024	JAMA Network Open	Schmidt-Persson, J.
•		
2023	Body Image	Seekis, V.
	Journal of Youth and	
2020		Sevic, S.

Literature Review - Other Authors	Literature Review - Article NameTitle
Magner, J., Temple, J., Lawrence, R., Magner, T. J., Avila-Quintero, V. J., McPherson, P., Alderman, L. L., Bhuiyan, M. A. N., Patterson, J. C., 2nd, & Murnane, K. S.	Social media use and body image issues among adolescents in a vulnerable Louisiana community
Vahedi, Z.	A meta-analytic review of the relationship between social media use and body image disturbance
Jeremiah, H. G., Andiappan, M., & Newton, J. T.	The effect of viewing idealised smile images versus nature images via social media on immediate facial satisfaction in young adults: A randomised controlled trial
Woodruff, S. J.	#SocialMedia: Exploring the Relationship of Social Networking Sites on Body Image, Self-Esteem, and Eating Disorders.
Rasmussen, M. G. B., Sørensen, S. O., Mortensen, S. R., Olesen, L. G., Brage, S., Kristensen, P. L., Bilenberg, N., & Grøntved, A.	Screen Media Use and Mental Health of Children and Adolescents: A Secondary Analysis of a Randomized Clinical Trial.
Lawrence, R. K.	How exposure to body neutrality content on TikTok affects young women's body image and mood
Ciprić, A., Buško, V., & Štulhofer, A.	The Relationship between the Use of Social Networking Sites and Sexually Explicit Material, the Internalization of Appearance Ideals and Body Self-Surveillance: Results from a Longitudinal Study of Male Adolescents

Literature Review - APA Publication Cite

Sagrera, C. E., Magner, J., Temple, J., Lawrence, R., Magner, T. J., Avila-Quintero, V. J., McPherson, P., Alderman, L. L., Bhuiyan, M. A. N., Patterson, J. C., 2nd, & Murnane, K. S. (2022). Social media use and body image issues among adolescents in a vulnerable Louisiana community. Frontiers in psychiatry, 13, 1001336.

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https://doi.org/10.1001/jamanetworkopen.2024.19881

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Sevic, S., Ciprić, A., Buško, V., & Štulhofer, A. (2020). The Relationship between the Use of Social Networking Sites and Sexually Explicit Material, the Internalization of Appearance Ideals and Body Self-Surveillance: Results from a Longitudinal Study of Male Adolescents. Journal of youth and adolescence, 49(2), 383–398. https://doi.org/10.1007/s10964-019-01172-2

Literature		
Review - Year	Literature Review - Journal	Literature Review - Lead Author
1001		
2019	Psychology of Popular Media	Sherlock, M.
2021	Computers in Human Behavior	Steinsbekk, S.
2023	Psychology of Popular Media	Thai, H.
2023	r sychology of r opular Media	That, 11.
	Behavioral Neurobiology of	
2011	Eating Disorders	Thornton, L. M.
2020		
2020	Body Image	Tiggemann, M.
2014	The Journal of Early Adolescence	Tiggemann, M.
	The International Journal of	
2017	Eating Disorders	Tiggemann, M.
2015	Body Image	Tiggemann, M.
		,
2018	Body Image	Tiggemann, M.

Literature Review - Other Authors	Literature Review - Article NameTitle
Wagstaff, D. L.	Exploring the relationship between frequency of Instagram use, exposure to idealized images, and psychological well-being in women.
Wichstrøm, L., Stenseng, F., Nesi, J., Hygen, B. W., & Skalická, V.	The impact of social media use on appearance self- esteem from childhood to adolescence—A 3-wave community study
Davis, C. G., Mahboob, W., Perry, S., Adams, A., & Goldfield, G. S.	Reducing social media use improves appearance and weight esteem in youth with emotional distress
Mazzeo, S. E., & Bulik, C. M.	The heritability of eating disorders: methods and current findings
Anderberg, I.	Muscles and bare chests on Instagram: The effect of Influencers' fashion and fitspiration images on men's body image.
Slater, A.	Nettweens: The internet and body image concerns in preteenage girls.
Slater, A.	Facebook and body image concern in adolescent girls: A prospective study
Zaccardo, M.	Exercise to be fit, not skinny: The effect of fitspiration imagery on women's body image.
Hayden, S., Brown, Z., & Veldhuis, J.	The effect of Instagram "likes" on women's social comparison and body dissatisfaction.

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Tiggemann, M., & Anderberg, I. (2020). Muscles and bare chests on Instagram: The effect of Influencers' fashion and fitspiration images on men's body image. Body image, 35, 237–244. https://doi.org/10.1016/j.bodyim.2020.10.001

Tiggemann, M., & Slater, A. (2014). Nettweens: The internet and body image concerns in preteenage girls. The Journal of Early Adolescence, 34(5), 606–620.

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Tiggemann, M., & Slater, A. (2017). Facebook and body image concern in adolescent girls: A prospective study. The International journal of eating disorders, 50(1), 80–83.

https://doi.org/10.1002/eat.22640

Tiggemann, M., & Zaccardo, M. (2015). "Exercise to be fit, not skinny": The effect of fitspiration imagery on women's body image. Body image, 15, 61–67.

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Literature Review - Literature Review - Journal Literature Review - Literature - Litera	view - I ead Author
Year	view - Leau Author
7007	
Cyberpsychology, Behavior	
2016 and Social Networking Tromholt M.	
The International Journal of	
2023 Eating Disorders Vall-Roqué, H.	
2021 A 11' / D 1 ' D / W 1 M	M. C
2021 Addictive Behavior Reports van Wezel, M.	M. C.
The Journal of Social	
2018 Psychology Vanman, E. J.	
2022 Communication Behavior Seriashalla S	
2023 Computers in Human Behavior Steinsbekk, S.	
Journal of Experimental	
2015 Psychology Verduyn, P.	
The Journal of Adolescent	
Health: Official Publication of	
the Society for Adolescent 2015 Medicine Walker, M.	

Literature Review - Other Authors	Literature Review - Article NameTitle
N/A	The Facebook Experiment: Quitting Facebook Leads to Higher Levels of Well-Being.
Andrés, A., González-Pacheco, H., & Saldaña, C.	Women's body dissatisfaction, physical appearance comparisons, and Instagram use throughout the COVID-19 pandemic: A longitudinal study
Abrahamse, E. L., & Vanden Abeele, M. M. P.	Does a 7-day restriction on the use of social media improve cognitive functioning and emotional wellbeing? Results from a randomized controlled trial.
Baker, R., & Tobin, S. J.	The burden of online friends: the effects of giving up Facebook on stress and well-being.
Nesi, J., & Wichstrøm, L.	Social media behaviors and symptoms of anxiety and depression. A four-wave cohort study from age 10-16 years.
Lee, D. S., Park, J., Shablack, H., Orvell, A., Bayer, J., Ybarra, O., Jonides, J., & Kross, E.	Passive Facebook usage undermines affective well-being: Experimental and longitudinal evidence
Thornton, L., De Choudhury, M., Teevan, J., Bulik, C. M., Levinson, C. A., & Zerwas, S.	Facebook Use and Disordered Eating in College- Aged Women

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Tromholt M. (2016). The Facebook Experiment: Quitting Facebook Leads to Higher Levels of Well-Being. Cyberpsychology, behavior and social networking, 19(11), 661–666. https://doi.org/10.1089/cyber.2016.0259

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Verduyn, P., Lee, D. S., Park, J., Shablack, H., Orvell, A., Bayer, J., Ybarra, O., Jonides, J., & Kross, E. (2015). Passive Facebook usage undermines affective well-being: Experimental and longitudinal evidence. Journal of experimental psychology. General, 144(2), 480–488. https://doi.org/10.1037/xge0000057

Walker, M., Thornton, L., De Choudhury, M., Teevan, J., Bulik, C. M., Levinson, C. A., & Zerwas, S. (2015). Facebook Use and Disordered Eating in College-Aged Women. The Journal of adolescent health: official publication of the Society for Adolescent Medicine, 57(2), 157–163. https://doi.org/10.1016/j.jadohealth.2015.04.026

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Year		
2024	Plos One	Walsh, L. C.
	The International Journal of	
2020	Eating Disorders	Wick, M. R.
	The International Journal of	
2020	Eating Disorders	Wilksch, S. M.
2022	JCPP Advances	Winstone, L.
2010	Psychology of Popular Media	W F K
2019	Culture	Yuen, E. K.
	Worldviews on Evidence	
2019	Based Nursing	Zeeni, N.
2016	Dasca Natsing	Zeem, iv.
2021	Frontiers in Psychology	Zhang, J.

Literature Review - Other Authors	Literature Review - Article NameTitle
Regan, A., Okabe-Miyamoto, K., & Lyubomirsky, S.	Does putting down your smartphone make you happier? the effects of restricting digital media on well-being
Keel, P. K.	Posting edited photos of the self: Increasing eating disorder risk or harmless behavior?
O'Shea, A., Ho, P., Byrne, S., & Wade, T. D.	The relationship between social media use and disordered eating in young adolescents.
Mars, B., Haworth, C. M. A., Heron, J., & Kidger, J.	Adolescent social media user types and their mental health and well-being: Results from a longitudinal survey of 13-14-year-olds in the United Kingdom.
Koterba, E. A., Stasio, M. J., Patrick, R. B., Gangi, C., Ash, P., Barakat, K., Greene, V., Hamilton, W., & Mansour, B.	The effects of Facebook on mood in emerging adults
Doumit, R., Abi Kharma, J., & Sanchez-Ruiz, M. J.	Media, Technology Use, and Attitudes: Associations With Physical and Mental Well-Being in Youth With Implications for Evidence-Based Practice
Wang, Y., Li, Q., & Wu, C.	The Relationship Between SNS Usage and Disordered Eating Behaviors: A Meta-Analysis

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Walsh, L. C., Regan, A., Okabe-Miyamoto, K., & Lyubomirsky, S. (2024). Does putting down your smartphone make you happier? the effects of restricting digital media on well-being. Plos One, 19(10), e0306910.

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Wilksch, S. M., O'Shea, A., Ho, P., Byrne, S., & Wade, T. D. (2020). The relationship between social media use and disordered eating in young adolescents. The International Journal of Eating Disorders, 53(1), 96–106, 104. https://doi.org/10.1002/eat.23198

Winstone, L., Mars, B., Haworth, C. M. A., Heron, J., & Kidger, J. (2022). Adolescent social media user types and their mental health and well-being: Results from a longitudinal survey of 13-14-year-olds in the United Kingdom. JCPP advances, 2(2), e12071. https://doi.org/10.1002/jcv2.12071

Yuen, E. K., Koterba, E. A., Stasio, M. J., Patrick, R. B., Gangi, C., Ash, P., Barakat, K., Greene, V., Hamilton, W., & Mansour, B. (2019). The effects of Facebook on mood in emerging adults. Psychology of Popular Media Culture, 8(3), 198–206. https://doi.org/10.1037/ppm0000178

Zeeni, N., Doumit, R., Abi Kharma, J., & Sanchez-Ruiz, M. J. (2018). Media, Technology Use, and Attitudes: Associations With Physical and Mental Well-Being in Youth With Implications for Evidence-Based Practice. Worldviews on evidence-based nursing, 15(4), 304–312. https://doi.org/10.1111/wvn.12298

Zhang, J., Wang, Y., Li, Q., & Wu, C. (2021). The Relationship Between SNS Usage and Disordered Eating Behaviors: A Meta-Analysis. Frontiers in psychology, 12, 641919. https://doi.org/10.3389/fpsyg.2021.641919

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March 2018	American Academy of Child & Adolescent Psychiatry. (2018, March). Social Media and Teens. https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FF F-Guide/Social-Media-and-Teens-100.aspx
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9/8/2021	Barry, R., Wells, G., West, J., Stern, J. (2021, September 8). How TikTok Serves Up Sex and Drug Videos to Minors. <i>Wall Street Journal</i> . https://www.wsj.com/articles/tiktok-algorithm-sex-drugs-minors-11631052944
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	graders.html
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	Eshiet, Janella, ""REAL ME VERSUS SOCIAL MEDIA ME:" FILTERS, SNAPCHAT DYSMORPHIA, AND BEAUTY PERCEPTIONS AMONG
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Date	Description
11/22/2024	Meta Defendants' Responses and Objections to Plaintiffs' Second Set of Interrogatories
2/28/2025	Meta Defendants' Third Supplemental and Amended Responses and Objections to Plaintiffs' Second Set of Interrogatories
4/16/2025	Expert Report, Anna Lembke, M.D. submitted April 18, 2025 (JCCP)

Exhibit C

Billing Rate and History of Testimony for Dr. Stuart Murray

Hourly rate for Dr. Stuart Murray: \$1000 per hour for all work performed.

Deposition and Trial Testimony in the last five (5) years: None